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United States
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Forest Service

Tongass
National
Forest
R10-MB-433a

August 2001



Woodpecker Project Area

Final Environmental Impact Statement

Summary and Record of Decision



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Abbreviations and Common Acronyms

ANILCA	Alaska National Interest Lands Conservation Act
ASQ	Allowable Sale Quantity
BMPs	Best Management Practices
CCF	Hundred Cubic Feet
CEQ	Council on Environmental Quality
DEIS	Draft Environmental Impact Statement
FEIS	Final Environmental Impact Statement
Forest Plan	Tongass Land and Resource Management Plan, 1997
GIS	Geographic Information System
IDT	Interdisciplinary Team
IRA	Inventoried Roadless Area
LTF	Log Transfer Facility
LUD	Land Use Designation
MBF	Thousand Board Feet
MIS	Management Indicator Species
MMBF	Million Board Feet
MMCF	Million Cubic Feet
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NIC	Non-interchangeable Component
OGR	Old-Growth Habitat Reserve
RMO	Road Management Objective
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
TTRA	Tongass Timber Reform Act
VCU	Value Comparison Unit
VQO	Visual Quality Objective
WAA	Wildlife Analysis Area



United States
Department of
Agriculture

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File Code: 1950

Date: August 15, 2001

Dear Reader:

Here is your copy of the Record of Decision (ROD) and the Final Environmental Impact Statement (FEIS) for the Woodpecker Project Area on the Petersburg Ranger District, Tongass National Forest.

Additional copies of this Final EIS are available for review at Forest Service Offices throughout the Tongass. If you would like to request additional copies to be sent to you, contact the Petersburg Ranger District at 907-772-3871.

The ROD documents my final decision on the Selected Alternative, and the facts considered in reaching the decision. The effective date of implementation for the decision and the Notice of Rights of Appeal are also specified in the ROD.

I want to thank those of you who took the time to review and comment on the Draft Environmental Impact Statement. Your interest in the management of the Tongass National Forest is appreciated.

As the Forest Supervisor, I am responsible for this decision. Please direct any correspondence or requests for additional copies to Cynthia Sever, Woodpecker Project Team Leader, P.O. Box 1328, Petersburg, Alaska 99833, or to the e-mail address: csever@fs.fed.us; or call (907) 772-3871.

Sincerely,

THOMAS PUCHLERZ
Forest Supervisor



Summary

Summary

Introduction

The Forest Service has prepared this environmental impact statement (EIS) to analyze the potential effects of timber harvest, recreation projects, and watershed improvements in the Woodpecker Project Area in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations.

Changes Between the Draft and Final Environmental Impact Statements

The decision from *AFA v. USDA*, the U.S. District Court, District of Alaska, which vacated the 1999 Forest Plan Record of Decision and upheld the 1997 Record of Decision, were incorporated. This resulted in minor changes in documentation but no changes in the analyzed effects.

New information about the Roadless Area Conservation Rule and the Forest Service Transportation; Final Administrative Policy (Roads Rule) was incorporated.

A new alternative (Alternative 6) was developed by modifying the Preferred Alternative in the Draft EIS (Alternative 2) to respond to concerns expressed in public comments on the Draft EIS. See Chapter 2.

Information was added to the Unit Card Narratives in response to requests in comments on the DEIS. Road Management Objectives were changed to include new information. See Appendix B.

Updates concerning information on the State of Alaska proposals (Southeast Alaska Transportation Plan and the Central/Southern Southeast Area Plan) were made.

Any new field information was incorporated and requests for information received from comments to the Draft EIS were incorporated when appropriate.

The District Ranger, Petersburg Ranger District, has made a separate project decision to approve the watershed improvement projects, which includes the revegetation projects and the reconstruction of stream crossing structures to improve fish passage so that implementation could begin during the 2001 field season.

Location

The Woodpecker Project Area is located on the southwest part of Mitkof Island, approximately 27 miles south of Petersburg, Alaska. Petersburg is located approximately 120 miles south of Juneau and 110 miles north of Ketchikan. The project area is approximately 33,000 acres in size.

Proposed Action

The Proposed Action (Alternative 2) for this environmental analysis includes timber harvest, the development of dispersed recreation opportunities, and watershed improvement projects. The proposed timber harvest will provide for multiple timber sale opportunities for approximately 12 million board feet (mmbf) of timber. Recreation opportunity enhancements include developing dispersed sites for camping and picnicking, improving access to recreation use areas, and improving turnouts for parking. Watershed improvement projects include revegetating exposed roadside slopes and restoring fish passage where stream crossing structures have the potential to restrict fish passage. Road use within the Woodpecker Project Area is examined, and objectives for road management are proposed. As part of the analysis for this proposed action, the small old-growth habitat reserves within the Woodpecker Project Area are analyzed to see if any boundary changes should be made as a non-significant amendment to the Forest Plan.

Decision to be Made

Based on the environmental analysis in this EIS, the Forest Supervisor will decide whether and how to implement activities within the Woodpecker Project Area in accordance with Forest Plan goals, objectives and desired future conditions. This decision may include the following:

- the location and method of timber harvest, road construction and reconstruction, log-transfer facilities, and silvicultural practices,
- road management objectives,
- recreation projects,
- watershed improvement projects (see below),
- mitigation measures and monitoring requirements,
- whether there may be a significant restriction on subsistence uses, and
- whether any changes in small old-growth habitat reserves should be made, and approved as a non-significant amendment to the Forest Plan.

The District Ranger, Petersburg Ranger District, has made a separate project decision to approve the watershed projects displayed in the Draft Environmental Impact Statement, which includes the revegetation projects and the reconstruction of stream crossing structures to improve fish passage so that implementation could begin in the 2001 field season.

Purpose and Need

The purpose and need for the proposed action is to respond to the goals and objectives identified by the Forest Plan and to move toward the desired future condition. The Forest Plan goals and objectives applicable to the Woodpecker Project Area are:

- Manage the timber resource for production of sawtimber and other wood products from suitable lands made available for timber harvest on an even-flow, long-term sustained yield basis and in an economically efficient manner.
- Seek to provide a timber supply sufficient to meet the annual market demand for the Tongass National Forest and the demand for the planning cycle.
- Provide Forest visitors with visually appealing scenery in areas along the Alaska Marine Highway, State highways, major forest roads, and from popular recreation places; recognize that in other areas where landscape is altered by management activities, the activity may visually dominate the characteristic landscape.
- Provide a range of recreation opportunities consistent with public demand, emphasizing locally popular recreation places and those important to the tourism industry.
- Maintain a Forest-wide system of old-growth forest habitat to sustain old-growth associated species and resources and ensure that the reserve system meets the minimum size, spacing, and composition criteria.
- Provide a diversity of opportunities for resource uses that contribute to the local and regional economies of Southeast Alaska to support a wide range of natural resource employment opportunities within Southeast Alaska's communities.
- Develop and manage roads to support resource management activities and provide access for forest users.

Forest Plan Management Direction

The Woodpecker Project Area EIS is a project-level analysis. Its scope is confined to addressing the significant issues and possible environmental consequences of the project. It does not attempt to address decisions made at higher levels of planning, such as national or forest-wide. It does however, implement direction provided at those higher levels. Where appropriate, the Woodpecker Project Area EIS tiers to the Forest Plan.

The Forest Plan uses management prescriptions called land use designations (LUD) to focus the management of the National Forest System lands within areas of the Tongass National Forest. Each land use designation provides for a combination of goals and objectives, activities, practices and uses. Chapter 3 of the Forest Plan contains a detailed description of each land use designation. The Woodpecker Project Area includes four of these land use designations - Timber Production, Modified Landscape, Scenic Viewshed, and Old-growth Habitat.

Public Scoping

The Woodpecker Project has had extensive public involvement. The following is a summary of the public involvement for the Woodpecker Project Area analysis:

- The project was first developed during the Mitkof Landscape Design Analysis, 1995.
- Schedule of Proposed Actions - The Woodpecker Project Area EIS has been listed on the Schedule of Proposed Actions for pre-project analysis since the Summer of 1998. It has been listed as an environmental analysis project since the fall of 1998.
- Open Houses and Public Meetings held in Kake and Petersburg - summer 1999, spring 1999, fall 1999, February 2000
- Public Scoping Documents - June 1999, January 2000
- Notice of Intent (NOI) - A Notice of Intent was published in the Federal Register on January 18, 2000
- Subsistence Hearing - A subsistence hearing was held in Petersburg, Alaska on October 4, 2000.
- Notice of Availability - Availability of the Draft EIS was announced in the Federal Register on August 18, 2000, with a due date for public comments listed as October 15, 2000. The letters received during the comment period were responded to in the Final EIS (Appendix C).

Prior Management of Project Area

The Woodpecker Project Area has previously been used for timber production. Evidence of logging in the early 1900s exists in several locations. Most of the timber harvesting (about 2300 acres) was done under the 25-year contract with Pacific Northern Timber, which started in the late 1960s and was closed in 1981. Smaller sales occurred throughout the 1980s and 1990s. The most recent harvest was the Sumner Salvage Sale, which was helicopter-logged in 1995. All harvested stands have regenerated successfully.

The road system within the Woodpecker Project Area was constructed for timber harvest in the 1960s and 1970s. This road system was connected with the Mitkof Highway in 1979, which allowed road access from the City of Petersburg.

Recreation developments in the Woodpecker Project Area include two viewpoints and picnic sites on Road 6287, and a picnic site on the Snake Ridge Road (Road 40006).

The Woodpecker Project Area has also been used extensively for hunting, especially deer hunting. Berry-picking in the clearcuts along the roads is a popular recreation and subsistence activity. A small area at milepost 10.5 on Road 6245 near the beach has been used for camping and picnicking. In 1993, this camping area was analyzed for improvement but it was decided not to improve the site.

Significant Issues

Significant issues for the Woodpecker Project Area were identified through public and internal scoping. Similar issues were combined where appropriate. Measures of the significance of an issue are based on the extent of the geographic distribution or duration of the related effects, or the intensity of interest or resource conflict surrounding the issue.

The following four issues were determined to be significant and within the scope of the project decision. These issues are addressed through the proposed action and alternatives.

Issue 1: Deer Hunting

Issue 2: Recreation

Issue 3: Economics

Issue 4: Crystal Inventoried Roadless Area

Summary

Issue 1 – Deer Hunting

Mitkof Island has traditionally been used by residents of Petersburg for subsistence deer hunting. The Woodpecker Project Area is the most heavily used part of Mitkof Island for deer hunting, due to the accessibility provided by the road system that connects to Petersburg, and the higher numbers of deer inhabiting the area. The number of deer is higher in the Woodpecker Project Area because of good forage and because of the milder winters found on the southern slopes near saltwater. The area provides an opportunity for hunters to teach this traditional use of Alaska's resources to their children without a large expenditure of time or money and without the safety risks inherent in traveling to outlying areas.

Issue 2 – Recreation

Because of the proximity of the Woodpecker Project Area to the City of Petersburg, many residents use the area for a variety of recreational activities. Some of the residents primarily want the area kept as natural as possible for access by foot or boat. Other residents want the ability to drive to the area and want more enjoyable roaded activities. The main recreational use of the Woodpecker Project Area is for hunting, but many people also use the area for berry-picking and recreational driving. Recent comments indicated that people would use the area more if the road was improved and if dispersed recreation sites existed. Use of the Woodpecker Road may also increase if a proposed new state of Alaska ferry terminal is built on the south end of Mitkof Island. Ferry travelers offloading from the new terminal would be arriving to the island near the project area, and would drive past the project area on their way to Petersburg and the ferry terminal on the north end of the island.

Parts of the Woodpecker Project Area can be seen from Visual Priority Travel Routes and Use Areas, such as the Alaska Marine Highway, Wrangell Narrows, and Sumner Strait. Both residents and tourists use these areas for water-based recreation. Several small cruise ships travel the Wrangell Narrows, although larger cruise ships generally do not. The concern mentioned in public comments was to maintain the value of the scenery, for the enjoyment of both residents and visitors.

Issue 3 – Economics

This issue relates to the viability of the local economies, both on Mitkof Island and around Southeast Alaska. It concerns proposed timber sales, the potential employment and revenues generated by the project, and the ability of smaller companies to compete for timber sales in the project area. The most economical opportunities for smaller timber companies are located along the existing road system. Higher volume sales requiring extensive road construction or helicopter logging may be beyond the means of smaller timber purchasers.

Another aspect of economics is the effect of timber harvest on other local industries – fishing, tourism, and commerce, for example. These effects are not specific to the Woodpecker Project Area and are interdependent with other parts of Southeast Alaska.

Issue 4 – Crystal Inventoried Roadless Area (#224)

Part of the Crystal Inventoried Roadless Area (#224) is within the Woodpecker Project Area. Roadless areas are identified as undeveloped lands where there are no roads maintained for travel by motorized vehicles intended for highway use and which do not have extensive timber harvest or other developments. This analysis examines the values of the Crystal Inventoried Roadless Area that may be affected by this proposed project. During the analysis for the Woodpecker project, alternatives that would affect the Crystal Inventoried Roadless Area were considered along with alternatives that would not affect the area.

Currently, the Forest Service is reevaluating its Roadless Area Conservation Rule (Roadless Rule) and is enjoined from implementing all aspects of the Roadless Rule by the U.S. District Court, District of Idaho. The Woodpecker Draft EIS was issued prior to the deadline in the Roadless Rule, so this project could move forward regardless of the Roadless Rule status. Implementation of any alternative that would change the wilderness character of the Crystal Inventoried Roadless Area would depend upon the applicability of the Court's injunction.

Alternatives Considered in Detail

Alternative 1 - No Action

This alternative proposes no timber harvest, road construction, or other activities within the Woodpecker Project Area at this time. It does not preclude future timber harvest from this area. The Council on Environmental Quality (CEQ) regulations require that a "No- Action" alternative be analyzed in every EIS. The analysis of this alternative represents the existing condition of the Woodpecker Project Area.

Alternative 2 – Proposed Action

The Proposed Action for the Woodpecker Project Area would harvest timber by road access, provide new dispersed recreation opportunities, improve parking areas for hunting and recreation access, determine road management objectives, and revegetate selected road cutbanks.

An estimated 1,140 acres would be partially harvested while retaining various amounts of trees within the stands. The amount of timber volume provided is estimated to be 12 million board feet, to be sold in multiple sales, including some sales of less than one million board feet.

Approximately 4.8 miles of new classified road would be built to access the timber. After harvest is completed, about 1.8 miles of this new classified road would remain open, and 3 miles would be placed in

storage. Approximately 6.1 miles of temporary road would also be built for timber access. All of the temporary roads would be decommissioned after harvest. About 10 miles of existing classified roads would be closed to motorized vehicles and placed in storage. Logs would be transported to an existing log transfer site or processing yard.

Several dispersed picnic/camp sites are proposed for recreation use. Improved or new road turnouts would be developed along the Woodpecker Road to provide additional safe parking areas. A segment of road would be constructed to create a loop by connecting the Woodpecker Road with another existing road to provide a new recreation opportunity. The Woodpecker Road, the Snake Ridge Road and the access to the Snake Ridge Road would be improved for standard passenger vehicle use.

Fish passage will be improved at five stream crossings on the Woodpecker Road that have the potential to restrict fish passage. This will be accomplished by either installing new structures or by modifying the existing structures to meet new design criteria. To prevent degradation of water quality, several sites would be revegetated.

Alternative 3

An estimated 500 acres would be partially harvested while retaining various amounts of trees within the stands. The amount of timber volume provided is estimated to be 6 million board feet to be sold in multiple sales.

No new classified road construction is proposed. Existing roads or short temporary roads would be used to access timber. Approximately four miles of temporary road would be built to access the timber. All of the temporary roads would be decommissioned after harvest. About 10 miles of existing classified roads would be closed to motorized vehicles and placed in storage. The Woodpecker Road, the Snake Ridge Road and the access to the Snake Ridge Road would be improved for standard passenger vehicle use. Logs would be transported to an existing log transfer site or processing yard.

Fish passage will be improved at five stream crossings on the Woodpecker Road that have the potential to restrict fish passage. This will be accomplished by either installing new structures or by modifying the existing structures to meet new design criteria.

No new recreation or watershed improvement projects are proposed in Alternative 3. The loop road would not be built.

Alternative 4

An estimated 1,850 acres would be partially harvested while retaining various amounts of trees within the stands. The amount of timber volume provided is estimated to be 17 million board feet, to be sold in multiple sales, including sales of less than 1 million board feet.

No new classified roads would be built. Existing roads or short temporary roads would be used to access the timber. Approximately three miles of temporary road would be built for timber access. All of the temporary roads would be decommissioned after harvest. About 10 miles of existing classified roads would be closed to motorized vehicles and placed in storage. Logs would be transported to an existing log transfer site or processing yard.

Several dispersed picnic/camp sites are proposed for recreation use. Improved or new road turnouts would be developed along the Woodpecker Road to provide additional safe parking areas. The Woodpecker Road, the Snake Ridge Road and the access to the Snake Ridge Road would be improved for standard passenger vehicle use. Fish passage will be improved at five stream crossings on the Woodpecker Road that have the potential to restrict fish passage. This will be accomplished by either installing new structures or by modifying the existing structures to meet new design criteria. To prevent degradation of water quality, several sites would be revegetated.

Alternative 5

An estimated 1,670 acres would be partially harvested while retaining various amounts of trees within the stands, and 60 acres would be clearcut. The amount of timber volume provided is estimated to be 27 million board feet to be sold in multiple sales, including sales less than 1 million board feet.

Alternative 5 includes both new road construction and helicopter logging from existing roads. Approximately 3.5 miles of new classified road would be built to access the timber. After harvest is completed, about 1 mile of this new classified road would remain open, and 2.5 miles would be placed in storage. Temporary road segments, which total 4.1 miles, would be built for timber access. All of the temporary roads would be decommissioned after harvest. About 10 miles of existing classified roads would be closed to motorized vehicles and placed in storage. Logs would be transported to an existing log transfer site or processing yard.

Several dispersed picnic/camp sites are proposed for recreation use. Improved or new road turnouts would be developed along the Woodpecker Road to provide additional safe parking areas. The Woodpecker Road, the Snake Ridge Road and the access to the Snake Ridge Road would be improved for standard passenger vehicle use.

Summary

Fish passage will be improved at five stream crossings on the Woodpecker Road that have the potential to restrict fish passage. This will be accomplished by either installing new structures or by modifying the existing structures to meet new design criteria. To prevent degradation of water quality, several sites would be revegetated.

Alternative 6 - Preferred Alternative

An estimated 1,300 acres would be partially harvested while retaining various amounts of trees within the stands. The amount of timber volume provided is estimated to be 16 million board feet to be sold in multiple sales, including sales less than 1 million board feet.

Alternative 6 includes both new road construction and helicopter logging from existing roads. Approximately 4.8 miles of new classified road would be built to access the timber. After harvest is completed, about 1.8 miles of this new classified road would remain open, and 3 miles would be placed in storage. Temporary road segments, which total 3.8 miles, would be built for timber access. All of the temporary roads would be decommissioned after harvest. About 10 miles of existing road would be closed to motorized vehicles and placed in storage. A short 300-foot section of unclassified road that junctions with Road 40004 will be decommissioned and allowed to return to a more natural state with vegetation and natural drainage patterns. Logs would be transported to an existing log transfer site or processing yard.

Several recreation sites are proposed for development. Improved or new road turnouts would be developed to provide additional safe parking areas. A segment of road would be constructed to create a loop by connecting the Woodpecker Road with another existing road to provide a new recreation opportunity. The Woodpecker Road, the Snake Ridge Road and the access to the Snake Ridge Road would be improved for standard passenger vehicle use.

Fish passage would be improved at five stream crossings on the Woodpecker Road that have the potential to restrict fish passage. This will be accomplished by either installing new structures or by modifying the existing structures to meet new design criteria. To prevent possible degradation of water quality, several sites would be revegetated.

Mitigation Measures for All Action Alternatives

Where effects to resources were unavoidable, mitigation measures were developed to reduce those effects. The mitigation measures for all of the action alternatives are described in Chapter 2 and Appendix B.

Table S-1. Comparison of Alternatives by Proposed Activity

Proposed Activity	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Acres of Timber harvest by harvest treatment						
75% retention	0	570	140	740	200	380
50-66% retention	0	350	200	990	530	680
20-30% retention	0	220	160	120	940	240
0% retention	0	0	0	0	60	0
Acres of Timber harvest by logging systems						
Cable	0	990	350	310	640	750
Shovel	0	150	150	150	150	150
Helicopter	0	0	0	1,390	940	400
Road construction						
Miles of new classified roads	0	4.8	0	0	3.5	4.8
Miles of new classified roads left open	0	1.8	0	0	1.0	1.8
Miles of temporary roads (closed after harvest)	0	6.1	3.9	3.1	4.1	3.8
Number of Recreation projects						
Picnic/Campsites	0	7	0	7	8	8
Turnouts	0	4	0	4	4	4
Number of Watershed projects¹						
Fish passage	0	5	5	5	5	5
Revegetation projects	0	5	0	5	5	5

¹ The District Ranger, Petersburg Ranger District, has made a separate project decision to approve these watershed projects, which includes the revegetation projects and the reconstruction of stream crossing structures to improve fish passage. Implementation has begun on the revegetation projects to stabilize and mitigate effects on these areas. A contract has been awarded to begin the survey, design, and reconstruction of four of the five stream crossing structures.

Summary

Table S-2. Comparison of Alternatives by Effects

Units of Measure	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
Issue 1 – Deer Hunting						
Change in deer carrying capacity year 2003 ¹	0%	-1.5%	-0.9%	-1.8%	-2.4%	-1.4%
Change in deer carrying capacity year 2043 ²	-9.6%	-11.3%	-10.5%	-11.2%	-12.7%	-11.2%
Effect on historical levels of subsistence deer harvest?	yes	yes	yes	yes	yes	yes
Effect on current levels of deer harvest?	no	no	no	no	no	no
Issue 2 – Recreation						
Acres changed from semi-primitive to roaded settings ³	0	1270	260	2280	2230	1365
% of area changed from semi-primitive to roaded settings	0	4%	<1%	8%	7%	4%
Issue 3 – Economics						
Amount of volume (mbf)	0	12,300	5,700	16,800	26,800	16,300
Amount of volume (ccf)	0	25,200	11,600	34,200	54,200	30,870
Appraised value (\$/ccf)	0	\$15.38	\$35.24	\$5.63	\$15.31	\$12.35
Issue 4 – Crystal Inventoried Roadless Area (IRA)						
Acres within the IRA affected by timber harvest	0	310 acres	0	830 acres	800 acres	370 acres
Miles of new classified road within the IRA	0	2.0 miles	0	0	1.4 miles	2.0 miles
Acres affected by timber harvest, including areas within 600 ft of harvest units	0	850 acres	140 acres	1910 acres	1860 acres	840 acres
Remaining size of IRA excluding acres within 600 ft of harvest units	18,320 acres	17,470 acres	18,180 acres	16,410 acres	16,460 acres	17,480 acres
Other Environmental Considerations						
Biodiversity						
Acres of old-growth habitat maintained	14,250	13,820	14,020	13,920	13,170	13,850
Effects on TES Species	None	None	None	None	None	None
Other Wildlife						
Percent change in marten carrying capacity by year 2003 ¹	0%	-1.8%	-1.1%	-2.4%	-3.3%	-1.9%
Percent change in marten carrying capacity by year 2043 ²	-1.7%	-3.2%	-2.5%	-2.9%	-4.7%	-3.1%
Water Quality						
Number of new Class I stream crossings	0	0	0	0	0	0
Number of new Class II stream crossings	0	2	1	1	2	2
Number of new Class III stream crossings	0	13	1	1	11	13
Number of new Class IV stream crossings	0	2	0	0	2	2
Wetlands						
Miles of new classified road on wetlands	0	1.1	0	0	1.1	1.1
Effects on Subsistence other than deer	None	None	None	None	None	None
Effects on Heritage Resources	None	None	None	None	None	None
Effects on Land Status	None	None	None	None	None	None
Effects on Karst	None	None	None	None	None	None
Transportation						
Miles of new classified roads	0	4.8	0	0	3.5	4.8
Miles of new classified roads left open	0	1.8	0	0	1.0	1.8
Miles of temporary roads (decommissioned after harvest)	0	6.1	3.9	3.1	4.1	3.8
Road density for Mitkof Island (mi/mi ²)	0.68	0.69	0.68	0.68	0.68	0.69
Effects on Wild, Scenic and Recreational Rivers	None	None	None	None	None	None

¹ For the purposes of alternative comparison and analysis only, it was assumed that all harvest would occur by 2003, for the deer and marten models.

² At year 2043, the canopies of the existing second-growth stands will completely close, reducing forage. No future thinning has been taken into account.

³ For total acreages in each Recreation Opportunity Spectrum class for each alternative, refer to Table 3-4 in Chapter 3.

Record of Decision

Woodpecker Project Area

Record of Decision

Tongass National Forest USDA Forest Service Alaska Region

Lead Agency: Tongass National Forest
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Ketchikan, Alaska 99901

Responsible Official: Thomas Puchlerz, Forest Supervisor
Tongass National Forest

For Further
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Woodpecker Project Area Record of Decision

Introduction

This Record of Decision (ROD) documents my decision to select an alternative from the Woodpecker Project Area Final Environmental Impact Statement (Final EIS). The project area is located on Mitkof Island approximately 27 miles southwest of Petersburg, Alaska on the Petersburg Ranger District of the Tongass National Forest. This decision includes the specific location and design of timber harvest units and roads, recreation and watershed enhancement opportunities to be implemented, and resource protection requirements. Timber from this project will be sold in multiple sales of varying sizes. In addition, this decision includes the implementation of road management objectives, including intended use and maintenance levels and projects such as culvert and bridge replacement.

Background

The purpose and need for this project is to respond to goals and objectives identified by the Forest Plan and to move the project area toward the desired future condition for all resources. The Forest Plan identifies the following goals and objectives, which are applicable to the Woodpecker Project Area:

- Manage the timber resource for production of sawtimber and other wood products from suitable lands made available for timber harvest on an even-flow, long-term sustained yield basis and in an economically efficient manner.
- Seek to provide a timber supply sufficient to meet the annual market demand for the Tongass National Forest and the demand for the planning cycle.
- Provide Forest visitors with visually appealing scenery in areas along the Alaska Marine Highway, State Highways, major forest roads, and from popular recreation places; recognize that in other areas where the landscape is altered by management activities, the activity may visually dominate the characteristic landscape.
- Provide a range of recreation opportunities consistent with public demand, emphasizing locally popular recreation places and those important to the tourism industry.
- Maintain a Forest-wide system of old-growth forest habitat to sustain old-growth associated species and resources and ensure that the reserve system meets the minimum size, spacing, and composition criteria identified in the Forest Plan.

Record of Decision

- Provide a diversity of opportunities for resource uses that contribute to the local and regional economies of Southeast Alaska; support a wide range of natural resource employment opportunities within local communities.
- Develop and manage roads to support resource management activities and provide access for forest users.

Public Scoping

Public scoping began with the Notice of Intent to prepare an EIS published in the Federal Register on January 18, 2000. A Draft Environmental Impact Statement (Draft EIS) was distributed in August 2000 and the comment period lasted until October 15, 2000. This ROD and the Final EIS disclose the environmental effects of the alternatives considered and document my decision to authorize the project and associated activities.

In developing the Final EIS and this ROD, I recognize that less than complete knowledge exists about many relationships and conditions of wildlife, fish, forests, jobs, and communities. The ecology, inventory, and management of a large forest area is a complex and developing science. The analysis of wildlife species prompts questions about population dynamics and habitat relationships. The interaction between resource supply, the economy, and communities is not an exact science.

The data and level of analysis used in the Final EIS were commensurate with the importance of the possible impacts (40 Code of Federal Regulations (CFR) 1502.15). When encountering a gap in information, the interdisciplinary team (IDT) took one of two approaches: (1) the missing information was collected or analysis was conducted necessary to identify important relationships, or (2) the IDT concluded that although the missing information would have added precision to estimates or better specified a relationship, the basic data and central relationships are sufficiently established in the respective sciences so that new information would be very unlikely to reverse or nullify understood relationships. Where relevant, the project analysis tiered to the information from the Forest Plan (40 CFR 1502.20).

Decision

This Record of Decision documents my decision to implement activities in the Woodpecker Project Area. My decision encompasses the following:

- the location and method of timber harvest, road construction and reconstruction, log-transfer facilities, and silvicultural practices,
- road management objectives,
- recreation projects,
- mitigation measures and monitoring requirements,
- whether there may be a significant possibility of a significant restriction on subsistence uses,
- whether any changes in small old-growth habitat reserves should be made and

approved as a non-significant amendment to the Forest Plan (see Appendix 1), and

- whether a forest plan amendment or revision is necessary to adopt the proposed road management objectives that include road construction or reconstruction in an inventoried roadless area (see Appendix 2).

It is my decision to choose Alternative 6 as the Selected Alternative for implementation in the Woodpecker Project Area. This decision is based on the environmental analysis in this EIS including agency, tribal, and public comments received during the comment period on the Draft Environmental Impact Statement. This decision meets the purpose and need for the project; is consistent with the Tongass National Forest Land and Resource Management Plan Record of Decision (1997); and is responsive to issues raised during scoping, to information gathered during the environmental analysis, and to public and agency comments on the Draft EIS.

The Preferred Alternative identified in the DEIS (Alternative 2) was modified to create a new alternative (Alternative 6) in response to public comments on the Draft EIS. The following modifications were made to Alternative 2 in creating Alternative 6, hereafter referred to as the Selected Alternative:

- Several units (Units 123, 125, 128, and 129) containing high value deer winter habitat were deleted from the preferred alternative. These units will remain in the suitable timber base and may be harvested in the future, pending further environmental analysis and decision.
- Several units (Units 88, 90e, 109, 110, 119, 119a) were added. These units will be helicopter logged by removing trees dispersed across the stand, with 50-66 percent retention. This will provide more volume for the timber supply and opportunities for a range of sale sizes. These units and treatments were analyzed in Alternative 4, which emphasized helicopter logging.
- The harvest treatment was changed from 75 percent retention to 20-30 percent retention for Units 102 and 103. Also, the harvest treatment was changed from 75 percent to 50-66 percent retention for Units 104b and 104c. These units were analyzed with harvest treatments of 20-30 percent retention in Alternative 5. These modifications will make these units more economical as small sales.
- The recreation projects from Alternative 5 are included. This adds one picnic site on Road 6287 and one dispersed recreation site improvement to those proposed in Alternative 2 (see Activity Cards in Appendix B of the FEIS).
- A short 300-foot section of unclassified road that junctions with Road 40004 will be decommissioned and allowed to return to a more natural state with vegetation and natural drainage patterns.

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In response to comments received on the Draft EIS, other clarifications in the Final EIS include:

- The harvest treatment descriptions in the Introduction to Unit Cards were modified to emphasize that marten standards and guidelines will be incorporated in areas of high value marten habitat and a description of the size and number of trees to be left is included. This includes leaving seven large trees (20-30 inches or more in diameter) per acre plus smaller trees to retain at least 10-20 percent of the stand structure as required by the Forest Plan for the Woodpecker Project Area. This direction affects all units in the Selected Alternative with the exception of Units 92 and 93 which contain no high value marten habitat. However, these two units would retain 20-30 percent of the stand retention to mitigate effects on deer and other wildlife.
- Text changes have been made regarding explanations of the deer model to clarify that the interagency model was used and the model was not modified.
- More information has been included about windthrow probability, both in Chapter 3 and on the unit card narratives.
- More information about steep slopes and wetlands in regards to unit boundaries has been included on the unit cards.
- New terminology for the discussion of the transportation system has been added to reflect recent changes in road management policy (see discussion below regarding Roads Rule).
- A number of comments were received regarding the exclusion of the watershed improvement projects from Alternatives 1 and 3. The comments stated that, regardless of the alternative selected (including the no-action alternative) the Forest Service was obligated to address watershed concerns as soon as possible. I agree with these comments. The District Ranger, Petersburg Ranger District, has made a separate project decision to approve these watershed improvements, which includes the watershed revegetation projects and the reconstruction of stream crossing structures to improve fish passage. Implementation has begun on the revegetation projects to stabilize and mitigate effects on these areas. A contract has been awarded to begin the survey, design, and reconstruction of four of the five stream crossing structures.

Due to recent decisions and litigation, several changes in Forest Service direction occurred between the DEIS and FEIS:

- Modifications were made throughout the document to make the project consistent with the 1997 Record of Decision for the Tongass National Forest Land and Resource Management Plan. At the time of DEIS publication, the 1999 Record of Decision for the Forest Plan was in effect. On March 30, 2001, the US District Court, District of Alaska vacated the 1999 Record of Decision for the Tongass Forest Plan and upheld the 1997 Record of Decision

(Alaska Forest Association v. United States Department of Agriculture, Case No. J99-0013 CV (JKS)).

- The Woodpecker Project Area Final EIS and this ROD have been prepared to be consistent with the Forest Service Transportation Final Administrative Policy (Roads Rule). Among other direction, the Roads Rule requires that an area-specific roads analysis be completed and a determination of need for amendment or revision of the Forest Plan be made if any roads are to be constructed or reconstructed in inventoried roadless or contiguous unroaded areas, until a forest-wide roads analysis has been completed (FSM 7712.16(c)). This analysis has been made for the Woodpecker project and can be found in the Mitkof Island Roads Analysis, on file at the Petersburg Ranger District. A determination regarding the need for amendment or revision of the Forest Plan prior to implementing the proposed road construction in the Crystal Inventoried Roadless Area is included in this decision as Appendix 2. A separate interim directive (7710-2001-1) extends the deadlines for requiring roads analysis for all road management decisions to January 12, 2002 (FSM 7712.15), but does not apply to FSM 7712.16.
- The Forest Service is reevaluating its Roadless Area Conservation Rule (Roadless Rule) and is currently enjoined from implementing all aspects of the Roadless Rule by the US District Court, District of Idaho. The Woodpecker Project Area Draft EIS was issued prior to the deadline in the Roadless Rule, so this project could move forward regardless of the Roadless Rule status.
- On March 30, 2001, pursuant to *Sierra Club v. Lyons* (J00-0009 (CV)), the US District Court, District of Alaska enjoined the Tongass National Forest from taking any action to change the wilderness character of any eligible roadless area until a supplemental environmental impact statement evaluating wilderness recommendations for roadless areas has been prepared. On May 23rd, 2001, the presiding Judge temporarily lifted this injunction pending a hearing and further order from the Court.

Highlighted Features of the Selected Alternative:

- 1) The Selected Alternative will harvest timber from approximately 1,300 acres in the project area. This harvest will provide an estimated 16.3 million board feet of sawlog and utility volume based on estimates of unit volume (actual cruised volume may vary). Design features and mitigation measures for the 43 harvest units are described in detail on the Unit Cards in Appendix B. Of these harvest units, 14 units totaling 240 acres will be managed as two-aged stands with a retention of 20-30 percent of the stand basal area, and 29 units totaling 1,060 acres will be managed as uneven-aged stands with the first entry retaining 50 to 75 percent of the stand basal area. Seven of these harvest units totaling 370 acres with a volume of 3.7 million board feet are within the Crystal Inventoried Roadless Area.

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- 2) There will be 4.8 miles of new classified roads designed for long-term use and 3.8 miles of temporary roads. Two miles of Road 40822, a classified road, and 0.8 miles of temporary road will be constructed within the Crystal Inventoried Roadless Area. Of the new classified road miles, one mile of Road 40822, including 0.8 miles within the roadless area, and the 0.8 mile loop connection between Road 6282 and Road 6245, will be left open. All of the temporary roads will be decommissioned after timber harvest. Decommissioning would include activities that result in stabilization and restoration of roads not needed for long-term management to a more natural state. These activities may include blocking the entrance to a road, installing waterbars, removing culverts, restoring vegetation, and reestablishing former drainage patterns to initiate restoration of interrupted ecological processes.
- 3) There will be eight dispersed camping/picnic sites either improved or created throughout the project area. These sites will be accessible by existing roads. Four turnouts will be improved or created to enable safe roadside parking. See the Activity Cards in Appendix B.
- 4) A total of ten miles of existing classified roads (Roads 6280, 6281, 6283, 6284, 6287, and 40083) will be managed as closed roads in storage (Maintenance Level I). This maintenance level may also involve some of the same activities proposed for decommissioning roads, such as removing culverts and installing waterbars. However, the road bed would be mostly left intact and is planned to be used for future National Forest Service land management activities. Until that time, the road is not maintained and closed for public use. The unclassified road will be decommissioned as soon as possible. Fish passage will be improved at five stream crossings with identified concerns. The Selected Alternative will manage the existing and new roads as displayed in the Road Cards shown in Appendix B of the Final EIS. As stated above, the decision has already been made to revegetate several sites along cutbanks and within existing units to ensure erosion control (see the Activity Cards in Appendix B).
- 5) An existing log transfer facility will be used for timber transport or timber may be processed in Petersburg. There may be a floating logging camp to facilitate the timber harvest, but no land-based camp is being considered at this time. The operator of the camp will be responsible for securing appropriate permits from state and federal agencies.
- 6) This Record of Decision incorporates mitigation measures to reduce or eliminate adverse environmental effects of timber harvest specified in the Selected Alternative. These mitigation measures are listed in Chapter 2 of the FEIS and in Appendices B and D. Also, Chapter 2 contains the project-level implementation and effectiveness monitoring planned to determine how well resource management objectives have been met. In addition, this ROD identifies feasible enhancement opportunities following implementation of this alternative. These opportunities will be included in the Sale Area Improvement Plan developed for the timber sale.

- 7) The potential foreseeable future and cumulative effects from implementing the Forest Plan, including the no-action and action alternatives in the project area, do not present a significant possibility of a significant restriction of subsistence uses of resources other than deer. The direct effects from the action alternatives in the project area do not present a significant possibility of a significant restriction of subsistence uses of wildlife, fish and shellfish, marine mammals, other foods, and timber resources. Mitigation measures for minimization of impact to subsistence resources suggested through agency and public scoping have been incorporated into the Selected Alternative. However, there may be a significant possibility of a significant restriction of subsistence use of Sitka black-tailed deer based on projected past, present and reasonably foreseeable activities in the Woodpecker Project Area. This is true for any alternative including the no-action alternative.

Reasons for the Decision

- 1) In making my decision, I considered the many issues raised during the development and scoping of this project, Forest Plan and Record of Decision standards and guidelines relevant to the project area, and took into account competing interests and values of the public. Many divergent public and agency opinions were expressed during the analysis. These comments have helped me make a better informed decision. I have considered all views that have been expressed, and have used contributions where feasible and consistent with the purpose and need of the project.

The Selected Alternative provides a beneficial mix of resources for the public within the framework of the existing laws, regulations, policies, public needs and desires, and capabilities of the land, while meeting the stated purpose and need for this project. This decision is one suited to this project area at this time. Even though there is uncertainty due to recent litigation, this project provides the opportunity to provide wood fiber to society and still protects the other resources within the project area. Providing even flows of timber products is one of several multiple-use goals of the Forest Plan, along with resource protection (see Chapter 2 of the Forest Plan). Without obtaining decisions on environmental analyses in a timely manner, an even-flow of timber products can not be obtained (see Appendix A of this Final EIS). This project has been done with thorough public involvement and has gained public support. I acknowledge that some comments opposed this project (and some opposed any timber harvest on National Forest System land), but this decision is supported by the Forest Plan and the multiple-use policy of the Forest Service. I believe the Selected Alternative best meets the goals and objectives developed for the area under the Forest Plan and balances site-specific concerns unique to the project, while achieving the purpose and need of the proposal.

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- 2) I have carefully considered the timing of this decision in view of ongoing changes in agency regulations and pending litigation. While I appreciate and understand the comments advising to delay this decision until such time as greater certainty exists regarding roadless area management, consideration of wilderness values and other current events, the need to complete analyses in a timely manner is compelling. Some of the factors I considered in making this decision include:
- The revised Forest Plan allows for the activities approved by this decision to take place.
 - The repercussions of delaying decisions regarding road building and timber harvest, even for a relatively short period, have a significant effect on the amount of timber available for sale in the next year, due to the time needed for sale preparation activities, appraisal and advertisement, and to provide for the winter period when sale units are typically inaccessible.
 - Decisions delayed affect other decisions “in line” for consideration, creating impacts to the entire sale program several years into the future.
 - The Tongass National Forest will continue to be managed in compliance with Section 101 of the Tongass Timber Reform Act of 1990 (TTRA) which states in part that the Secretary of Agriculture “...shall, to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, seek to provide a supply of timber from the Tongass national Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such forest for each Planning cycle” (Forest Plan ROD, page 37). The Forest has received special funding to ensure it will be able to meet this objective within the direction and requirements of the Forest Plan. No new timber harvest volume has had analysis completed through the NEPA process for the coming year, which affects timber supply to meet current and future market demand.
 - This project has received good support from the local community and is relatively uncontroversial. The Petersburg City Council passed a resolution on February 17, 1998 in support of small timber sales from National Forest Service System lands.
 - The Selected Alternative includes very little effect to the inventoried roadless area acres (370 acres of partial harvest and two miles of classified road of which 0.8 miles will be left open for public use will occur in the 18,320-acre Crystal Inventoried Roadless Area). These activities will occur along the southern edge of the roadless area, adjacent to the roaded portion of the Woodpecker Project Area.
- 3) My decision to implement this Selected Alternative conforms to the Forest Plan and the principles of sound National Forest management. The Selected Alternative limits harvest to about 1,300 acres and is consistent with direction in the Forest Plan. I have considered the need to help provide a sustained level of timber supply to meet annual and Forest Plan planning cycle market

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demand, and to provide diverse opportunities for natural resource employment, consistent with multiple use and sustained yield of all renewable forest resources. The Woodpecker project will help meet society's and Southeast Alaska's timber supply needs.

- 4) The Selected Alternative will construct 4.8 miles of classified road designed for long-term use and 3.8 miles of temporary road. This facilitates the harvest and transport of timber more economically and safely, and is less dependent on optimum weather conditions than the use of helicopters. However, many comments were received about road use for access for non-timber harvest uses, the effects of road construction on other resources, and the lack of road maintenance funds, and these comments were carefully considered. Therefore, only 1.8 miles of the classified roads will be left open after the proposed timber harvest is complete. The other three miles of new permanent road will be closed and put into storage. About ten miles of existing permanent road will also be put into storage. The 3.8 miles of new temporary road plus one short (300-foot) unclassified road that is not necessary for Forest Service or public transportation needs will be decommissioned and returned to a more natural state.
- 5) The Selected Alternative uses a variety of logging systems depending on the accessibility of the unit. Road access to most of these units can be provided in an environmentally sound and cost-effective manner and is within Forest Plan direction for this area. Helicopter logging will be used where road access is not practicable. The units that require helicopter logging have short turn distances which will make them more economically feasible. No units were proposed for helicopter logging if road access was present. The availability of timber sales that can be cost-effective even in lower economic cycles is an important benefit to the Tongass timber sale program as a whole. The Selected Alternative will provide timber sale opportunities that will likely result in economically viable sales of varying sizes in most (but not all) market conditions.
- 6) The unit configurations and harvest prescriptions in the Selected Alternative reflect a reasoned balancing of the physical conditions and economic opportunities characteristic to this project area. These conditions cannot be directly compared to projects in different land use designations with different environmental and social concerns. The terrain, stand conditions, visual screening, economic opportunities and the Forest Plan guidance for the Woodpecker Project Area are, in their combination, unique to this area. I believe the Selected Alternative best meets the purpose and need for the proposal.
- 7) The Selected Alternative uses uneven-aged harvest prescriptions with retention of at least 50 percent of the trees per acre within stands for 80 percent of the acres proposed for timber harvest. The rest of the proposed stands will have 20-30 percent retention, which will create two-aged stands in the future with large legacy trees. The prescriptions chosen are based on

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consideration of many factors which are described in Chapter 3 and on a unit by unit basis in the Unit Cards of the Final EIS. Significant adverse effects to soils, water, or fisheries are not anticipated due to the road and unit locations selected in the Selected Alternative. Windthrow has been, and will continue to be, a natural disturbance in the project area. The mitigation measures listed on the Activity cards in Appendix B of the Final EIS leads me to conclude that the unit locations, designs, and harvest prescriptions used in the Selected Alternative reduce the possibility of catastrophic windthrow. Much of the area that is exposed to severe winds, such as the area adjacent to Sumner Strait, will not be harvested in this entry since it is located within small old-growth habitat reserves and unavailable for timber harvest, or has been previously harvested.

- 8) The effects to high value deer winter habitat were taken into consideration. Much of this deer winter range is unavailable for timber harvest because of Forest Plan Land Use designation or standards and guidelines. Other stands available for timber harvest were not proposed for timber harvest this entry. Based on comments received on the DEIS, units 123, 125, 128, and 129 were deleted from the Selected Alternative. These units contain high value deer winter habitat. This change will further minimize potential impacts to the high value deer winter habitat within the project area. The other units that contain high value deer winter habitat, units 121, 122, and 122a and portions of units 90 and 90d, have a harvest treatment that retains 75 percent of the basal area of the stand. The Selected Alternative does propose partial harvest within 140 acres of high value deer winter habitat. This will be accomplished using the group selection method with 75 percent retention and the removal of 2 acre patches for an estimated 35 acres to be harvested. A 200-year rotation used for the stand prescriptions will increase the overall retention of future forest cover within the project area.
- 9) The Selected Alternative will mitigate the effects on marten habitat capability by leaving large trees within all units with high value marten habitat according to the Forest Plan standards and guidelines and through the use of the 200-year rotation.
- 10) The Selected Alternative retains wildlife travel corridors between the medium old-growth habitat reserves on Mitkof Island and adjacent areas by placement of the small old-growth habitat reserves on the perimeter of the project area. Much of the area within the 1,000-foot beach fringe that is not available for commercial timber harvest is in old-growth forest, which further provides connectivity. This is strengthened by the modification of the small old-growth habitat reserves described in Appendix 1.
- 11) Two primary uses of the Woodpecker Project Area are deer hunting and recreational driving. This will remain the case under the Selected Alternative. Unroaded recreation will continue to remain available in much of the project area. The road system provides access to much of the areas currently favored for unroaded activities such as hiking and hunting. Some increased

availability of access for deer hunting will be allowed with the construction of Road 40822, which will have one mile left open indefinitely. My decision to put into storage existing classified roads 6280, 6281, 6283, 6284, 6287, and 40083 will reduce current access, however it will remedy existing resource concerns and allow road maintenance funding to be directed to roads with higher levels of use. The road connection between Roads 6282 and 6245 will facilitate recreational driving by creating a continuous loop. In addition, my decision to upgrade the Woodpecker Road (Road 6245) and the Snake Ridge Road (Road 40006 plus the beginning of Road 6246) for passenger vehicle access will improve the driving experience.

- 12) Effects to scenery from the Visual Priority Travel Routes and Use Areas designated in Appendix F of the Forest Plan have been mitigated by unit selection, harvest prescriptions, unit design, and an extended timber harvest rotation. Timber harvest viewed from Sumner Strait, Wrangell Narrows, South Blind Slough, and Crystal Mountain will not be evident to the casual observer.
- 13) The Selected Alternative does include a portion of the Crystal Inventoried Roadless Area, which is 18,320 acres, however, the activities would not significantly affect the wilderness characteristics of the area or its eligibility for inclusion in the National Wilderness Preservation System. Partial harvest would occur on 370 acres within the roadless area. There would be two miles of classified road construction designed for long-term use and 0.8 miles of temporary road construction. Only 0.8 miles of classified road would remain open for public use after timber harvest. The temporary roads would be decommissioned after timber harvest and the remaining 1.2 miles of classified roads would be closed and put into storage. These acres do not contribute significantly to the wilderness character of the area because of the proximity to the sights and sounds of the existing road system. Due to the mountainous terrain, habitat types, and current wildlife and human uses, the portion of the roadless area containing the most important roadless area values is located outside the Woodpecker Project Area to the north, around Crystal Mountain and Blind Slough.
- 14) I have also considered dropping all harvest units and roads within the Crystal Inventoried Roadless Area in this decision. The need to provide sale opportunities of varying sizes and types to the timber industry, the need to make timber volume available to meet market commitments, and the relatively small number of roadless acres affected by this decision (370 acres out of 18,320 total acres in the Crystal Inventoried Roadless Area), compel me to decide to retain a mix of roaded (930 acres) and unroaded acres (370 acres) within the Selected Alternative. I believe this decision provides a reasonable mix of products and protection when considering all social and natural resources values.

- 15) The Selected Alternative allows the use of existing log transfer facilities at Woodpecker Cove or Olson's landing. Barging of logs will be the standard method of transport. Rafting logs may be acceptable on a case-by-case basis depending on the amount of material and the possibility of adverse effects to resources and would be determined at the time of the sale. Any log transfer facility use would be monitored to ensure that bark accumulation remains within thresholds specified in the U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System permit obtained for the facility.

How Significant Issues are Addressed

In making my decision, I considered four major issues identified during the planning process. In the following summary, I disclose how the Selected Alternative addresses each of the significant issues. Tables 2-1 and 2-2 and Chapter 3 of the Final EIS supplement the following discussion and provide a comparison of the alternatives.

Issue 1: Deer Hunting

This issue centers around the popularity of the Woodpecker Project Area for deer hunting by the residents of Mitkof Island, and the concern that any timber harvest on the island will affect deer populations. Mitkof Island has traditionally been used by residents of Petersburg for subsistence deer hunting. The Woodpecker Project Area is the most heavily used part of Mitkof Island for deer hunting, due to the accessibility provided by the road system that connects to Petersburg, and the higher numbers of deer inhabiting the area. The number of deer is higher in the Woodpecker Project Area because of good forage and the milder winters found on the southern slopes near saltwater.

The Selected Alternative responds to this concern by maintaining the majority (96 percent) of the 3,370 acres of high value deer winter habitat within the project area. The harvest treatments for the units that contain 140 acres of high value deer winter habitat will retain 50 percent or more of the basal area of the stand which will help retain old-growth characteristics. All proposed timber harvest units will contain residual trees, and will be managed on a 200-year rotation, which maintains higher deer winter habitat values over time.

Access for hunting will be managed by closing all temporary roads and all but 1.8 miles of the classified roads. Temporary roads will be decommissioned and closed immediately after timber harvest to protect resources. The three miles of classified roads designed for long-term use may be kept open and maintained for a short period of time after commercial timber harvest while firewood or personal use timber opportunities exist. Public notice will be given before these roads are closed and put into storage or decommissioned depending on future use. The new roads to be left open indefinitely include the loop connection between Road 6282 and Road 6245, and the first mile of Road 40822. The access provided by Road 40822 may disperse hunters by allowing easier access into a previously unroaded area.

Issue 2: Recreation

This issue addresses concerns for outdoor recreation opportunities including scenic values offered in and around the Woodpecker Project Area and the effects timber harvest may have on these opportunities.

The Selected Alternative maintains all existing recreation uses, both roaded and unroaded, within the Woodpecker Project Area. These uses include deer and moose hunting, berry-picking, sight-seeing, camping, and freshwater fishing. The improvement and/or creation of eight dispersed camping/picnic sites and four parking turnouts are included in the Selected Alternative. These sites are accessible by existing roads.

Unit location and design were carefully considered in all alternatives to minimize impacts to scenery. All alternatives meet the adopted Forest Plan visual quality objectives (VQOs) as specified from the priority travel routes, use areas, and their viewsheds. Key viewsheds of these priority travel routes and use areas include Sumner Strait, Wrangell Narrows, South Blind Slough, and Crystal Mountain. The Selected Alternative, with partial harvest and uneven-aged management, will result in a slight textural change within the selected units, but is not expected to be noticeable to the casual observer. The Selected Alternative meets a higher level of VQOs as specified from the priority travel routes, use areas and their viewsheds.

In coming to this decision, I did consider the proposed ferry terminal on south Mitkof Island. Although the final location is not definite at this time, current proposed locations are outside of the Woodpecker Project Area and any proposed activities cannot be viewed from those locations. Recent studies have predicted that increased road use within the project area associated with this proposed ferry terminal would be negligible. Views from the existing ferry route were considered during unit selection, design, and harvest treatments.

Issue 3: Economics

The Selected Alternative provides an estimated 16.3 MMBF of timber that will contribute to the Forest Service's attempt to seek to meet market demand in a manner consistent with the Tongass Land and Resource Management Plan and the standards and guidelines for all resources. Timber from this project is needed as a component of the timber sale schedule to provide timber to industry in an even flow over the ten-year planning cycle. The harvest economic analysis contained in the Final EIS resulted in a stumpage value of \$25.20/MBF during high markets and \$-21.31/MBF during low markets for the Selected Alternative. Stumpage values actually received on timber sales are highly variable and are subject to market conditions at the time the sale is offered. The values will also differ dependent on the amount of volume and unit location of that particular sale. It is expected that some of the sales offered will be more economical and generate more revenue than others due to composition of the stand for tree species and value of trees, haul length, and topography. The timber

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harvest from the Woodpecker Project Area is scheduled to be sold in multiple sales. Because of the mix of logging systems, harvest treatments, and road construction needed, the Selected Alternative has the most opportunities for a mix of sale sizes. Some sales may be less financially appealing to prospective bidders during low markets due to the necessity of helicopter-logging or road construction. However, the combination of units and logging systems will be chosen to create a number of the most economical sales possible.

The effects to permitted outfitters and guides operating within the project area are limited to any use that occurs at the Woodpecker Cove Log Transfer Facility and the road system. This effect will be minor due to the low level of use based on information from the permits issued in the past few years. Outfitter-guide use is not expected to increase much beyond the few current permits. Recreation use by the public may be displaced in some areas during timber harvest operations. Recreation use may increase with the improvement of dispersed recreation sites and turnouts, the improvements to the Woodpecker Road (Road 6245) and the Snake Ridge Road (Roads 6246/40006), and with the new loop road that will be created with Roads 6282 and 6245.

Issue 4: Crystal Inventoried Roadless Area

About two-thirds of the 18,320-acre Crystal Inventoried Roadless Area (#224) is within the Woodpecker Project Area. During the analysis for the revision of the Forest Plan, the Inventoried Roadless Areas were reevaluated for their value as undeveloped areas or for potential inclusion in the National Wilderness Preservation System (Forest Plan FEIS, Appendix C). The portion of the Crystal Inventoried Roadless Area that is within the Woodpecker Project Area has been allocated to development land use designations, which allow timber harvest and road construction. The Selected Alternative would partially harvest 370 acres within the roadless area. There are two miles of classified road construction planned and 0.8 miles of temporary road construction within the roadless area. Only 0.8 miles of classified road will remain open for public use. The temporary roads would be decommissioned after timber harvest and the remaining classified roads will be closed and put into storage.

On March 30, 2001, pursuant to *Sierra Club v. Lyons* (J00-0009 (CV)), the US District Court, District of Alaska enjoined the Tongass National Forest from taking any action to change the wilderness character of any eligible roadless area until a supplemental environmental impact statement evaluating wilderness recommendations for roadless areas has been prepared. On May 23rd, the presiding Judge temporarily lifted this injunction pending a hearing and further order from the Court. The area where these units are located does not contribute significantly to the wilderness character of the area because of the proximity to the sights and sounds of the existing road system. Due to the mountainous terrain, habitat types, and current wildlife and human uses, the portion of the roadless area containing its most important roadless area values is located outside the Woodpecker Project Area to the north, around Crystal Mountain and Blind Slough. This area is designated for non-

development by the Forest Plan. Therefore, the most important values of the Crystal Inventoried Roadless Area will be minimally affected by this project and the remaining roadless acreage (greater than 5,000 acres) will continue to make this area eligible for inclusion in the National Wilderness Preservation System.

Currently, the Forest Service is reevaluating the Roadless Area Conservation Rule (Roadless Rule) and is enjoined from implementing all aspects of the Rule by the U.S. District Court, District of Idaho. The Woodpecker Project Area Draft EIS was issued prior to the deadline in the Roadless Rule, so this project could move forward regardless of the status of the Rule.

Public Involvement

Public involvement has been instrumental in the identification and clarification of issues for this project. This has been helpful in the formulation of alternatives and has assisted me in making a more informed decision for the Woodpecker project. Public meetings, Federal Register notices, newspaper and radio news releases, open houses, the Tongass National Forest Schedule of Proposed Actions, and group and individual meetings were used to solicit input for this project.

Scoping Letters: In June 1999 and January 2000, scoping letters were sent to everyone that requested to be on the project mailing list.

Notice of Intent: A Notice of Intent to Prepare an Environmental Impact Statement was published in the Federal Register on January 18, 2000.

Open Houses: Multiple open houses and public meetings were held in Petersburg and Kake during the environmental analysis process in 1999 and 2000.

Federally-recognized Tribal Governments: The Petersburg Indian Association, the Organized Village of Kake, and the Wrangell Cooperative Association, the tribal governments within or near the Petersburg Ranger District, were consulted about any potential impacts or concerns during the development of alternatives and mitigations to this environmental impact statement. No significant concerns were raised.

Public Comment received for the Draft EIS: Availability of the Draft EIS was announced in the Federal Register on August 18, 2000, with a due date for public comments listed as October 15, 2000. The letters received during the comment period were responded to in the Final EIS (Appendix C).

Subsistence Hearing: A subsistence hearing for the Woodpecker Project Area in accordance with Section 810 of the Alaska National Interest Lands Conservation Act was held in Petersburg, Alaska, on October 4, 2000 at the Petersburg City Council Chambers. The date, time, and location of the subsistence hearing were publicized in the local media. An open house to describe the analysis process and to answer public

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questions was held in conjunction with the subsistence hearing. Public comment on the Draft EIS was also accepted at that time.

Analysis and Incorporation of Public Comments: Public comments and subsistence comments have been analyzed and incorporated into the Final EIS. For an analysis of public comment and the Forest Service response to public comment, see Appendix C of the Final EIS.

The Final EIS has been filed with the Environmental Protection Agency and is available for public review.

Coordination With Other Agencies

From the time scoping was initiated, meetings and site visits with all interested state and federal agencies have occurred. Issues were discussed and information was exchanged. Personnel from the Alaska Division of Governmental Coordination, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, and the U.S. Fish and Wildlife Service visited the project area during the environmental analysis.

Coordination meetings were held with the state of Alaska, including the Department of Fish and Game and the Department of Environmental Conservation. The Alaska Coastal Management Plan (ACMP) consistency review process was initiated upon publication of the Draft EIS through the offices of the Alaska Division of Governmental Coordination.

A Biological Assessment was prepared and sent to the National Marine Fisheries Service as part of the Section 7 consultation process under the Endangered Species Act. Consultation was not required with the U.S. Fish and Wildlife Service since no terrestrial threatened or endangered wildlife species are present in the project area.

The Final EIS identifies the agencies that were informed of and/or involved in the planning process (see *List of Agencies, Organizations, and Individuals Sent Copies of this Statement* in Chapter 4 of the Final EIS).

Alternatives Considered in Detail

Six alternatives were considered in detail in the Final EIS. Each action alternative is consistent with the Tongass Land and Resource Management Plan. For a complete description of these alternatives refer to Chapter 2 of the Final EIS. The alternatives as developed in the Final EIS are:

Alternative 1 - This No-action Alternative represents the existing conditions in the Woodpecker Project Area, and serves as the baseline against which the effects of the other alternatives are measured. This alternative proposes no timber harvest, road construction, or other activities within the Woodpecker Project Area at this time. There would be no new resource outputs associated with this alternative. There would be no changes to scenery, recreation, subsistence, wildlife or fisheries resources.

This alternative was not selected since environmental analysis showed that the desirable outputs of the purpose and need could be achieved with reasonable effects to the ecological and human environments. These effects are described under the reasons for this decision and in Chapter 3 of the Final EIS.

Alternative 2 – This alternative was the Proposed Action presented during public scoping and identified as the Preferred Alternative for the Draft EIS. The theme of this alternative responded to the comments for exclusive use of ground-based logging systems instead of using helicopters for logging, inclusion of small timber sale opportunities, and creating a new loop road connection.

In Alternative 2, an estimated 1,140 acres would be partially harvested while retaining various amounts of trees within the stands. The amount of timber volume provided is estimated to be 12 million board feet, to be sold in multiple sales, including some sales of less than one million board feet. Approximately 4.8 miles of new classified road would be built to access the timber, of which about 1.8 miles would remain open after harvest. Approximately 6.1 miles of temporary road would also be built for timber access. All of the temporary roads would be decommissioned and allowed to return to a more natural state after harvest. About 10 miles of existing classified roads that would be needed for future management would be closed and put into storage to reduce resource damage. Improvement of fish passage through five existing stream crossings along Road 6245 would occur.

This alternative would also improve dispersed recreation opportunities, parking areas for hunting and recreation access, and watershed conditions through revegetation. This alternative includes a loop road connection between Roads 6282 and Road 6245.

This alternative was identified as the Preferred Alternative in the Draft EIS. After the comments were received on the Draft EIS, several responses from the public and other agencies were used to develop a new alternative, Alternative 6, which became the Selected Alternative. These changes reduced the effects on deer winter habitat,

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enhanced several small sale opportunities, and improved the possible range and variety of timber sales by the addition of helicopter units, which provided more timber volume.

Alternative 3 – This alternative was focused on providing only small timber sale opportunities and on the use of the existing road system with no construction of new classified roads designed for permanent use. It was designed to have the least impact on resources other than timber management within the project area.

An estimated 500 acres would be partially harvested while retaining various amounts of trees within the stands. The amount of timber volume provided is estimated to be 6 million board feet to be sold in multiple sales. Existing roads and approximately four miles of temporary road to be built would be used to access the timber. All of the temporary roads would be decommissioned and allowed to return to a more natural state after harvest. About 10 miles of existing classified roads needed for future management would be closed and put into storage to reduce resource damage. Improvement of fish passage through five existing stream crossings along Road 6245 would occur. No other resource activities were incorporated with this alternative.

There were several comments that identified this alternative as the one that should be chosen based on the environmental effects of resources other than timber supply. However, the analysis of the other alternatives showed that more timber volume could be harvested at this time without much difference in environmental effects.

Alternative 4 – This alternative was designed to respond to the request for helicopter logging while still providing small sale opportunities that could be harvested using ground-based systems.

This alternative would harvest approximately 16.8 million board feet of timber from approximately 1,850 acres. About 1,390 acres would be harvested by helicopter yarding and approximately 460 acres would be harvested by cable or shovel yarding. No new classified road would be constructed, but 3.1 miles of temporary road would be built within the project area. All of the temporary roads would be decommissioned and allowed to return to a more natural state after harvest. About 10 miles of existing classified roads needed for future management would be closed and put into storage to reduce resource damage. Improvement of fish passage through five existing stream crossings along Road 6245 would occur.

This alternative, as with Alternative 2, would also improve dispersed recreation opportunities, parking areas for hunting and recreation access, and watershed conditions through revegetation. Improvement of fish passage through culverts and closures of ten miles of roads where environmental concerns exist would be accomplished according to laws and regulation.

The main reason that this alternative was not chosen was because of the dependence on helicopter logging. Although helicopter-logging can be economically viable,

many of the units can be roaded, which is preferable from an economic viewpoint and for long-term timber management of the area.

Alternative 5 – The theme of this alternative was to provide more timber volume to seek to meet market demand by fully complying with, but not exceeding, Forest Plan standards and guidelines.

This alternative would harvest approximately 26.8 million board feet of timber using ground-based and helicopter yarding from approximately 1,730 acres. Most of the acres would have less than 50 percent of the trees remaining after harvest, resulting in even-aged or two-aged stands. This alternative would require construction of about 3.5 miles of classified roads and 4.1 miles of temporary road. About 1 mile of new classified road would remain open after harvest. All of the temporary roads would be decommissioned and allowed to return to a more natural state after harvest. About 10 miles of existing classified roads needed for future management would be closed and put into storage to reduce resource damage. Improvement of fish passage through five existing stream crossings along Road 6245 would occur.

This alternative would improve dispersed recreation opportunities to a slightly greater degree than Alternatives 2 and 4, parking areas for hunting and recreation access, and watershed conditions through revegetation.

This alternative was not chosen since, although it would meet the standards of the Forest Plan, more protection for various resources was desirable because of the road connection to the city of Petersburg and human uses of the area and the surrounding waters.

Alternative 6 – This alternative is described previously as the Selected Alternative.

Environmentally Preferred Alternative

Based on a comparison of the alternatives and the discussion contained within Chapter 3 of the Final EIS, Alternative 1, the No-Action Alternative, would cause the least environmental disturbance and is therefore the environmentally preferred alternative of all the alternatives studied in detail. Of the action alternatives, Alternative 3 is the environmentally preferred alternative, since it harvests the least amount of timber, has the fewest stream crossings, and has the least effect on the project area's wildlife carrying capacity.

Alternatives Not Considered in Detail

In addition to the alternatives described above, several more alternatives were considered during the analysis but eliminated from detailed study. These alternatives were discussed during the development of the alternatives. Some of them were suggested by comments received through public scoping. Some of the aspects of the ideas were modified and used in conjunction with the alternatives considered in detail. Other alternatives would not meet Forest Plan direction for this project. A summary of these, and the reasons they were not analyzed in detail can be found in Chapter 2 of the Final EIS, and further information is available in the project record.

Planning Record

The planning record for this project includes the Draft EIS, Final EIS, Forest Plan, Alaska Regional Guide, material incorporated by reference, and all materials produced during the environmental analysis of this project. The planning record is available for review at the Petersburg Ranger District.

Mitigation

Mitigation measures are prescribed to avoid, reduce, minimize or eliminate the adverse effects of actions. These measures were applied in the development of the project alternatives, including the Selected Alternative, and in the design of the harvest units and road corridors. The *Mitigation Measures* section of Chapter 2 and Appendix B of the Final EIS discusses mitigation measures for all alternatives.

Mitigation measures applicable to the Selected Alternative include measures contained in the Standards and Guidelines of the Forest Plan, Alaska Regional Guide, and applicable Forest Service Manuals and Handbooks. The Final EIS includes site-specific mitigation measures described in Chapter 2 and Unit and Road Cards in Appendix B. These measures are adopted as part of this decision and will be implemented. Measures to avoid or minimize adverse environmental effects of the project have been incorporated into the Selected Alternative.

Monitoring

A monitoring program is the process by which the Forest Service can evaluate whether the resource management objectives of the final environmental documents have been implemented as specified and whether the steps identified for mitigating the environmental effects were effective. Project-level monitoring is specified in Chapter 2 of the Final EIS. These monitoring items are part of this decision and will be implemented.

Each monitoring item describes the objective of the monitoring, what will be done, how it will be done, and the approximate cost of the monitoring. Monitoring activities may reveal results that deviate from planned effects, in which case corrective actions are prescribed. The Petersburg District Ranger is responsible for ensuring that project implementation, mitigation, monitoring, and enforcement are accomplished as specified in the Final EIS.

Findings Required By Law

National Forest Management Act

The National Forest Management Act (NFMA) requires specific determinations in this Record of Decision: consistency with existing Forest Plans and Regional Guides, a determination of clearcutting as the optimal method of harvesting, if used, and specific authorizations to create openings over 100 acres in size. Specific information and rationale used to develop unit prescriptions is shown on unit cards, in the planning record, in Chapter 3 of the Final EIS, and is summarized in this Record of Decision.

- **Tongass Land and Resource Management Plan and Alaska Regional Guide** - This decision is consistent with the Alaska Regional Guide and the Forest Plan for the Tongass National Forest. I have reviewed the management direction, standards and guidelines, and the schedule of activities for the project area included in the Selected Alternative, and find the Selected Alternative to be consistent with these elements. The activities authorized in this decision are consistent with the standards and guidelines and management prescriptions of the Forest Plan.
- **Clearcutting as the Optimal Method of Harvesting** – In order to comply with Forest Plan Standards and Guidelines and to mitigate effects on wildlife and scenery, no units in the Selected Alternative are proposed for traditional (100 percent removal) clearcutting where all trees would be removed.
- **Harvest Openings Over 100 Acres in Size** - There are no harvest openings over 100 acres proposed for this project.

Forest Service Transportation Final Administrative Policy (Roads Rule)

The Tongass National Forest has prepared the Woodpecker Project Area Final EIS to be consistent with the Forest Service Transportation Final Administrative Policy (Roads Rule). Among other direction, the Roads Rule requires that an area-specific roads analysis be completed and a determination of need for amendment or revision of the Forest Plan be made if any roads are to be constructed or reconstructed in inventoried roadless or contiguous unroaded areas, until a forest-wide roads analysis has been completed (FSM 7712.16(c)). This analysis has been made for the Woodpecker Project Area and can be found in the Mitkof Island Roads Analysis Report located in the project planning record. The determination for the Mitkof Island Roads Analysis Report is included as Appendix 2 of this ROD. A separate

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interim directive (7710-2001-1) extends the deadlines for requiring roads analysis for all road management decisions to January 12, 2002 (FSM 7712.15), but does not apply to FSM 7712.16.

Tongass Timber Reform Act (TTRA)

Harvest units were designed and located to maintain a minimum 100-foot buffer zone for all Class I streams and Class II streams that flow directly into Class I streams as required in Section 103 of the TTRA. The actual widths of these buffer strips will often be greater than the 100-foot minimum. The design and implementation direction for the Selected Alternative incorporates Best Management Practices (BMPs) for the protection of all streams.

Endangered Species Act

Actions authorized in the Selected Alternative are not anticipated to have a direct, indirect, or cumulative effect on any threatened or endangered species in the Woodpecker Project Area. The National Marine Fisheries Service has concurred that the actions described within the proposed project are not likely to adversely affect threatened and endangered species. A complete biological assessment is included in the planning record for this project. Consultation was done with the U.S. Fish and Wildlife Service; no terrestrial threatened or endangered species are known to occur in the Woodpecker Project Area. I have determined that this action will not have any adverse impacts on any threatened or endangered species.

Bald Eagle Protection Act

A Memorandum of Understanding (MOU) between the Forest Service and the U.S. Fish and Wildlife Service to facilitate compliance with the Bald Eagle Protection Act restricts management activities within 330 feet of an eagle nest site. The Selected Alternative is not anticipated to have a significant direct, indirect, or cumulative effect on any bald eagle habitat.

Clean Water Act

The design of harvest units for the Selected Alternative were guided by standards, guidelines and direction contained in the Forest Plan, Alaska Regional Guide, and applicable Forest Service manuals and handbooks. The Unit Cards and Road Cards (Appendix B) contain specific details on practices prescribed to prevent or reduce non-point sediment sources. Reasonable implementation with site-specific application and monitoring of approved BMPs is expected to comply with applicable State Water Quality Standards Regulations. These regulations provide for variances from anti-degradation requirements and water quality criteria. The timber harvest operators will be responsible for compliance, including obtaining any variance required by the state, and will be monitored for compliance by the Forest Service.

Essential Fish Habitat

The Woodpecker Project Area is unlikely to adversely affect Essential Fish Habitat for the following reasons:

1. Partial harvest will occur in all units in the Selected Alternative. This will lessen the impact on soil resources.

2. Proposed new roads do not cross Class I streams.
3. All harvest units adjacent to Class I streams employ no-harvest buffers at least 100 feet wide and generally wider according to Forest Plan standards and guidelines.
4. All harvest units adjacent to Class I and Class II streams will employ no-harvest buffers and windfirm buffers according to Forest Plan standards and guidelines. This will minimize the amount of sediment that flows downstream to anadromous fish streams.
5. Fish passage will be improved at five locations along Road 6245.
6. The Woodpecker Cove LTF complies with NPDES requirements. No bark accumulation was observed during the most recent dive survey of the area (September 2000).

The Best Management Practices described in the Unit Cards provide assurance of water quality and aquatic habitat protection for all freshwater streams and marine waters affected by the project. Based on the information presented in the Final EIS, I have determined that the Selected Alternative is unlikely to adversely affect essential fish habitat.

National Historic Preservation Act

We conducted heritage resource surveys of various intensities in the project area. The State Historic Preservation Officer has been consulted, and the project complies with the provisions of 36 CFR, Part 800. I have determined that there will be no significant effects on heritage resources.

Federal Cave Resource Protection Act of 1988

No cave resources have been documented within the project area and no caves were discovered during field work done for this analysis. The Selected Alternative will not have a direct, indirect, or cumulative effect on any significant cave or karst resources in the Woodpecker Project Area.

ANILCA Section 810, Subsistence Evaluation and Findings

A subsistence evaluation was conducted for the alternatives considered in detail, in accordance with ANILCA Section 810. An open house followed by an ANILCA 810 hearing was conducted in Petersburg, Alaska, during the comment period for the Woodpecker Project Area Draft EIS.

The review of the subsistence hearing testimony, comments from the public, and the analysis conducted for the Final EIS indicate that there is no significant possibility of a significant restriction on subsistence uses of wildlife (other than Sitka black-tailed deer), salmon, other finfish, shellfish, marine mammals, plant foods such as berries, and personal use timber resources as a result of this project. See the Subsistence section of Chapter 3 of the Final EIS. Analysis does indicate that there may be a significant possibility of a significant restriction of subsistence use of deer for all of the alternatives including the no-action alternative. However, implementation of the Selected Alternative by itself does not present a significant possibility of a significant

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restriction to the current level of subsistence use of deer. The effects solely from the Selected Alternative on the subsistence use of deer are minimal, with a reduction of about 1.4 percent in deer habitat capability estimated. Rather, there may be a significant possibility of a significant restriction when the Selected Alternative together with other past, present, and reasonably foreseeable actions, are considered in a cumulative manner. This possibility exists regardless of which alternative is implemented, including the No-Action Alternative presented in the Final EIS (See Issue 1, Deer Hunting in Chapter 3 of the Final EIS). This restriction, if it occurs, would be a result of: (1) a cumulative decrease in habitat capability when existing second-growth forest stands mature and shade out forage that could decrease the abundance or distribution of deer, (2) a very severe winter, which does occur periodically, causing high deer mortality as happened in the late 1960's, (3) an increase of predator populations, especially wolves, due to less aggressive predator harvests, and (4) anticipated human population growth with its associated increase in subsistence hunter demand when compared to the habitat capability to produce deer

Subsistence Determinations

Section 810 (a)(3) of ANILCA requires that when a use, occupancy, or disposition of public lands may result in a significant possibility of a significant restriction, a determination must be made whether (1) such a restriction is necessary, consistent with sound management principles for the utilization of public lands, (2) the proposed activity involves the minimum amount of public lands necessary to accomplish the purposes of the use, and (3) reasonable steps will be taken to minimize adverse impacts on subsistence uses and resources resulting from the actions.

Necessary, Consistent with Sound Management of Public Land – The Selected Alternative has been examined to determine whether the associated potential restriction to subsistence use is necessary, consistent with the sound management of public lands. In this regard, the laws and direction that have been considered include: (1) the National Forest Management Act of 1976 and its implementing regulations; (2) the Alaska National Interest Lands Conservation Act (ANILCA) of 1980; (3) the Alaska Regional Guide (1983); (4) the Tongass Land and Resource Management Plan (1997, as amended); (5) the Tongass Timber Reform Act (TTRA) of 1990; (6) the Alaska State Forest Practices Act; (7) the Alaska Coastal Management Program, (8) the Multiple Use Sustained Yield Act (1960), and USDA-FS Subsistence Management and Use Handbook (FSH 2609.25).

Management activities on National Forest System lands must provide for the multiple- use and sustained yield of renewable forest resources in accordance with the Multiple-Use Sustained Yield Act of 1960. Multiple-use is defined as “the management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people (36 CFR 219.3). The alternatives presented in the Final EIS represent different ways of managing the resources of the Woodpecker Project Area in combinations that are intended to meet these needs. Each provides a different mix of resource uses and opportunities, and each has some potential to affect subsistence

uses. Given the framework and emphasis of the Selected Alternative, the possibility of a restriction is necessary, consistent with sound management of public land.

ANILCA Title VIII places an emphasis on the maintenance of subsistence resources and lifestyles. However, the Act also provides for adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people and recognizes that public lands are necessary and appropriate for more intensive uses. The Act also requires the Forest Service to make available 4.5 billion board feet per decade from the Tongass National Forest. The TTRA removed the 4.5 billion board foot requirement, but directs the Forest Service to seek to meet market demand for timber to the extent consistent with providing for the multiple use and sustained yield of all renewable forest resources, and subject to applicable law.

As described in Appendix A of the Final EIS, the Selected Alternative is necessary as a component of the timber management program designed to implement the Forest Plan and to meet TTRA direction. There is currently a market demand for timber, a limited timber supply from other sources, and an under-utilized mill capacity in the region. The volume from the Selected Alternative is a component of the 10-year timber sale schedule which attempts to provide timber to industry in an even-flow over the planning cycle. The timber volume for this project was also designed to be sold in multiple small sales over a period of several years in order to offer sales for smaller timber operators in the area. The Selected Alternative can help meet the Forest Plan and TTRA objectives, while also providing reasonable protection measures for forest resources, especially for subsistence. It is consistent with the Forest Plan, laws, regulations, policies, public needs, and the capabilities of the land.

Based on a review of the subsistence hearing testimony and the analysis conducted in the Final EIS, it is apparent that all of the alternatives may involve some potential impact to subsistence deer use in the future. Due to the cumulative effect of past, present and reasonably foreseeable actions, there is no alternative, including the no-action alternative, that would meet Forest Plan and TTRA objectives and yet completely avoid a significant possibility of a subsistence restriction somewhere in the Tongass National Forest. From the analysis of the information presented in the Final EIS and ROD, and the guidance provided by the documents and laws listed above, I have determined that the actions involved in the implementation of the Selected Alternative are necessary, consistent with sound management of public lands and strike the best balance between meeting the needs of the public and protecting the forest resources.

Amount of Land Necessary to Accomplish the Purpose of the Proposed Action –

The amount of public land involved to implement the Selected Alternative (considering sound multiple-use management of public lands) is the minimum necessary to accomplish the purpose of the Selected Alternative. Most of the Tongass National Forest is used by one or more rural communities for subsistence deer hunting purposes. It is not possible to lessen timber harvest in one area and concentrate it in another locale without impacting one or more rural communities' important subsistence use areas. In addition, harvestable populations of subsistence wildlife species could not be maintained in a natural distribution across the forest if

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harvest were concentrated in specific areas. A well-distributed population of species is required by the National Forest Management Act and is one of the objectives of the Forest Plan.

The Forest Plan allocated many of the important subsistence use areas to land use designations that do not allow timber harvest. Other areas that are important to subsistence use were protected through standards and guidelines such as the 1,000-foot beach and estuary buffers and the stream-side Riparian Management Areas that do not allow timber harvest. Of the 28,440 acres of National Forest System lands within the Woodpecker Project Area, the Forest Plan allocated 17 percent of the area to the non-development land use designations of Old-growth Habitat, which does not allow timber harvest, and 83 percent to development land use designations such as Timber Production, Modified Landscape, and Scenic Viewshed. These designations provide for resource use and development for commodity resources such as timber.

The Selected Alternative uses sound timber harvest unit design and logical extensions of the road system. The minimum amount of land and roading was used to resolve resource concerns while meeting the purpose and need for this project in a practical and efficient manner. The Selected Alternative harvests only 4.6 percent of the total Woodpecker Project Area. Other alternatives involve less total land acreage but do not produce the mix and balance of resource uses described in the Forest Plan, TTRA, ANILCA and responds to public comment.

Partial harvest treatments are used for all selected units. Although the partial harvest units involve more acreage than traditional clearcutting units, the effects to resources will be less than the impact of clearcutting, especially for future effects, by providing more constant forage production. Resources are protected to the maximum extent practicable and the Selected Alternative meets or exceeds the Forest Plan standards and guidelines.

Past harvest practices of clearcutting in the Woodpecker Project Area will also affect the future deer habitat capability. A decrease in deer habitat capability for the no-action alternative is predicted to be 9.6 percent by the year 2043, when estimated future deer habitat capability is compared to conditions before large-scale timber harvesting occurred in the project area. This decline will occur when the existing second-growth stands reach complete canopy closure, which will result in a reduction of forage for deer. The use of partial harvest, as designed for the Woodpecker Project, will not create the large openings that past clearcutting did, and future changes in habitat capability will not be as great as with clearcutting.

The greatest risk to meeting subsistence demand in the future is primarily related to the anticipated human population growth and its associated increase in subsistence hunter demand when compared to the habitat capability to produce deer. This anticipated population growth will happen independently of this proposed project.

Management activities cannot completely avoid all subsistence areas due to their location and broad extent across the Forest. Other areas that could be harvested may be limited by additional resource concerns such as soil and water protection, high-

value wildlife habitat, economics, scenic quality, or unfeasible unit and road design. The impact of viable timber harvest projects usually includes the alteration of old-growth habitat which reduces habitat capability for old-growth associated species.

The Woodpecker Project involves the minimum amount of public land necessary and strikes a balance between meeting the needs of the public and protecting forest resources. Choosing any alternative (including the no-action alternative) other than the Selected Alternative or locating harvest in another location on Mitkof Island would not avoid or substantially lessen the risk to subsistence use in the future.

Reasonable Steps to minimize Adverse Impacts Upon Subsistence uses and

Resources – The Forest Plan took considerable steps to minimize adverse impacts to subsistence uses and resources. Forest Plan standards and guidelines protect important deer winter habitat. Other reasonable steps taken to minimize adverse impacts to subsistence resources include: the overall Forest Plan land use designation strategy, the old-growth reserve strategy, travel and access management planning, Forest Plan standards and guidelines for stream, beach and estuary buffers, and the use of silvicultural systems that maintain components of overstory tree canopy, such as two-aged and uneven-aged management.

In 1995, during the analysis for the Mitkof Landscape Design, small habitat conservation areas that encompassed important wildlife habitat were recommended for Mitkof Island. These were later incorporated into the Forest Plan (1997, as amended) as small old-growth habitat reserves. Much deliberation occurred during the Mitkof Landscape Design analysis and the environmental analysis for the Woodpecker EIS regarding the protection of high-value deer habitat on Mitkof Island and especially within this project area. The deer habitat is relatively poor on Mitkof Island compared to many other areas of the Tongass National Forest. Most of the higher value deer winter habitat on Mitkof Island is located within the Woodpecker Project Area. Because of this, the small old-growth habitat reserves within this area were designed to include much of the high value deer winter habitat. See the Biodiversity section in the Chapter 3 of the Final EIS.

Although the Selected Alternative will construct 4.8 miles of classified roads, only 1.8 miles will be left open for public use and the rest will be closed and placed in a storage condition. All temporary roads will be closed after timber harvest. This will keep a similar road density for Mitkof Island. (The Selected Alternative will be .69 miles per square mile compared to the current .68 miles per square mile.) Therefore, the same amount of access to subsistence species will be maintained. In addition, drainage structures will be removed from almost ten miles of existing roads and the roads will be maintained in a storage condition. See the Transportation Section in Chapter 3 of the FEIS.

Most of the high value deer winter habitat that is available to be harvested is not proposed for timber harvest as part of the Woodpecker Project. Three of the selected units, Units 121, 122, 122a, are within high value deer winter habitat. These units will be managed with a group selection prescription on a 200-year rotation. The groups will involve the removal of two-acre patches for a total of 35 harvested acres.

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After harvest, 75 percent of the stand will remain to mitigate the effects of the timber harvest by maintaining areas of old-growth forest and a diversity of age classes of trees.

Most of the other units, except those at higher elevations, contain deer winter habitat of varying values. The effects on this habitat will be mitigated by the use of partial harvest. The units on the south-facing slope north of Road 6282 will have at least a 50 percent retention. South-facing slopes are favored by deer in the winter because of the low angle of the sun. Although not required by the Forest Plan, all timber harvest units in the Selected Alternative will be managed with an extended rotation of 200 years to mitigate the potential effects. See Issue 1, Deer Hunting of Chapter 3 in the Final EIS.

The Selected Alternative reflects a reasonable balance between the projected need for timber from the project area to help meet the Forest Plan, ANILCA, and TTRA timber-related objectives, and the continued protection of subsistence uses and resources. Impacts on subsistence have been minimized throughout the design of the individual harvest units and road corridors, and through the formulation of the alternatives. I have determined that reasonable measures to minimize impacts on subsistence have been adopted to the maximum extent practicable while still meeting the purpose and need for this project.

Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (CZMA), while specifically excluding federal lands from the coastal zone, requires that a federal agency's activities be consistent with the enforceable standards of a state's coastal management program to the maximum extent practicable when the agency's activities affect the coastal zone.

The enforceable standards for timber harvest activities are found in the State Forest Practices Act. The standards and guidelines for timber harvest activities in the Woodpecker Project Area meet or exceed the standards in the State Forest Practices Act.

I have determined that the proposed activities in the Selected Alternative are consistent with the Alaska Coastal Management Program to the maximum extent practicable. The State of Alaska has concurred with my determination.

Consumers, Civil Rights, Minorities and Women

No negative impacts to the civil rights of individuals or groups, including minorities and women, are anticipated to be associated with this project. Additional information can be found in the Forest Plan Revision Final EIS Chapter 3 and Appendix H, as well as Chapter 3 of the Woodpecker Project Area FEIS.

Executive Orders

EO 11988 (Floodplains) - Executive Order 11988 directs federal agencies to take action to avoid, to the extent practicable, the long and short-term adverse impacts associated with the occupancy and modification of floodplains. The Selected Alternative does not modify any floodplains. No roads will be constructed across floodplains, and timber harvest will not occur on any floodplain.

EO 11990 (Wetlands) - Executive Order 11990 requires federal agencies to avoid, to the extent practicable, the long and short-term adverse impacts associated with the destruction or modification of wetlands. The Selected Alternative avoids most identified wetlands; however, many small wetlands or muskegs occur as inclusions within forested areas. These areas may be altered by timber harvest or road construction. Techniques and practices required by the Forest Service serve to maintain the wetland attributes including values and functions. It is estimated there will be only minimal loss of wetlands with any of the alternatives. Soil moisture regimes and vegetation on some wetlands may be altered in some harvest units; however, these altered acres would still be classified as wetlands and function as wetlands in the ecosystem.

Because wetlands are found throughout the project area, it is not feasible to avoid all wetland areas. However, there are no development activities planned on the more biologically significant wetlands.

EO 12898 (Environmental Justice) - Executive Order 12898 directs Federal agencies to identify and address the issue of environmental justice, i.e. adverse human health and environmental effects of agency programs that disproportionately impact minority and low-income populations. The order specifically directs agencies to consider patterns of subsistence hunting and fishing when an agency action may affect fish or wildlife. I have determined that implementation of the Selected Alternative will not cause adverse health or environmental effects that disproportionately impact minority and low-income populations.

EO 12962 (Recreational Fisheries) - Executive Order 12962 directs Federal agencies to conserve, restore and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide. Section 1 of the Executive Order is most pertinent to the proposed activity. Section 1 directs Federal agencies to evaluate effects on aquatic ecosystems and recreational fisheries, develop and encourage partnerships, promote restoration, provide access, and promote awareness of opportunities for recreational fishery resources.

The effects of this project have been evaluated throughout the Final EIS, including effects to freshwater and marine resources. Partnerships are continuing to be used to leverage federal project funds to address water quality concerns in areas of the Tongass National Forest, although none have been proposed for recreational fisheries in conjunction with this project.

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The Selected Alternative attempts to minimize the effects on aquatic systems through project design, application of Forest Plan Standards and Guidelines, BMPs and site-specific mitigation measures. Recreational fishing opportunities will remain essentially the same because aquatic habitats are protected through implementation of BMPs and riparian buffers, and may result in slightly increased opportunities. I have determined that there will be no significant effect to recreational fisheries.

Federal and State Permits

Federal and State permits necessary to implement the authorized activities are listed in Chapter 1 of the Final EIS.

Implementation Process

Implementation of this decision may occur no sooner than 50 days following publication of the legal notice of the decision in the *Juneau Empire*, published in Juneau, Alaska. The timber from this project is planned to be offered in multiple timber sales starting in 2001.

This project will be implemented in accordance with Forest Service Manual and Handbook direction for Timber Sale Project Implementation in FSM 2431.3 and FSH 2409.24. This direction provides a bridge between project planning and implementation and will ensure execution of the actions, environmental standards, and mitigation approved by this decision, and compliance with TTRA and other laws. All applicable Best Management Practices (BMPs) will be applied to the Selected Alternative.

Implementation of all activities authorized by this Record of Decision will be monitored to ensure that they are carried out as planned and described in the Final EIS.

Appendix B of the FEIS contains the Selected Alternative activity cards including harvest unit design cards, road cards, recreation projects and watershed projects. These cards are an integral part of this decision because they document the specific resource concerns, management objectives, and mitigation measures to govern the layout of the harvest units. These cards will be used during the implementation process to assure that all aspects of the project are implemented within applicable standards and guidelines and that resource impacts will not be greater than those described in the Final EIS. Similar cards will be used to document any changes to the planned layout as the actual layout and harvest of the units occurs with project implementation.

The implementation record for this project will display:

1. Each harvest unit as actually implemented,
2. Any proposed changes to the design, location, standards and guidelines, or other mitigation measures for the project, and
3. Authorization of the proposed changes.

Procedure for Changes During Implementation

Proposed changes to the authorized project actions will be subject to the requirements of the National Environmental Policy Act (NEPA), the National Forest Management Act of 1976 (NFMA), Section 810 of the Alaska National Interest Lands Conservation Act, the Tongass Timber Reform Act (TTRA), the Coastal Zone Management Act (CZMA), and other laws concerning such changes.

In determining whether and what kind of NEPA action is required, the Forest Supervisor will consider the criteria set forth in the Code of Federal Regulations (40 CFR 1502.9(c)), and FSH 1909.15, sec. 18 for determining whether to supplement an existing Environmental Impact Statement (EIS). In particular, the Forest Supervisor will determine whether the proposed change is a substantial change to the Selected Alternative as planned and already approved, and whether the change is relevant to environmental concerns. Connected or interrelated proposed changes regarding particular areas of specific activities will be considered together in making this determination. The cumulative impacts of these changes will also be considered.

The intent of field verification is to confirm inventory data and to determine the feasibility and general design and location of a unit or road, not to locate final boundaries or road locations. Minor changes are expected during implementation to better meet on-site resource management and protection objectives. Minor adjustments to unit boundaries are also likely during final layout for the purpose of improving logging system efficiency. This will usually entail adjusting the boundary to coincide with logical logging setting boundaries. Many of these minor changes will not present sufficient potential impacts to require any specific documentation or other action to comply with applicable laws. Some minor changes may still require appropriate analysis and documentation to comply with FSH 1909.15, sec. 18.

Right to Appeal

This decision is subject to administrative appeal. Organizations or members of the general public may appeal this decision according to Title 36 Code of Federal Regulations (CFR) part 215. The appeal must be filed within 45 days of the date that legal notification of this decision is published in the *Juneau Empire*, the official newspaper of record. The written Notice of Appeal must be filed with:

Regional Forester, Alaska Region
U.S. Department of Agriculture, Forest Service
P.O. Box 21628
Juneau, AK 99802-1628

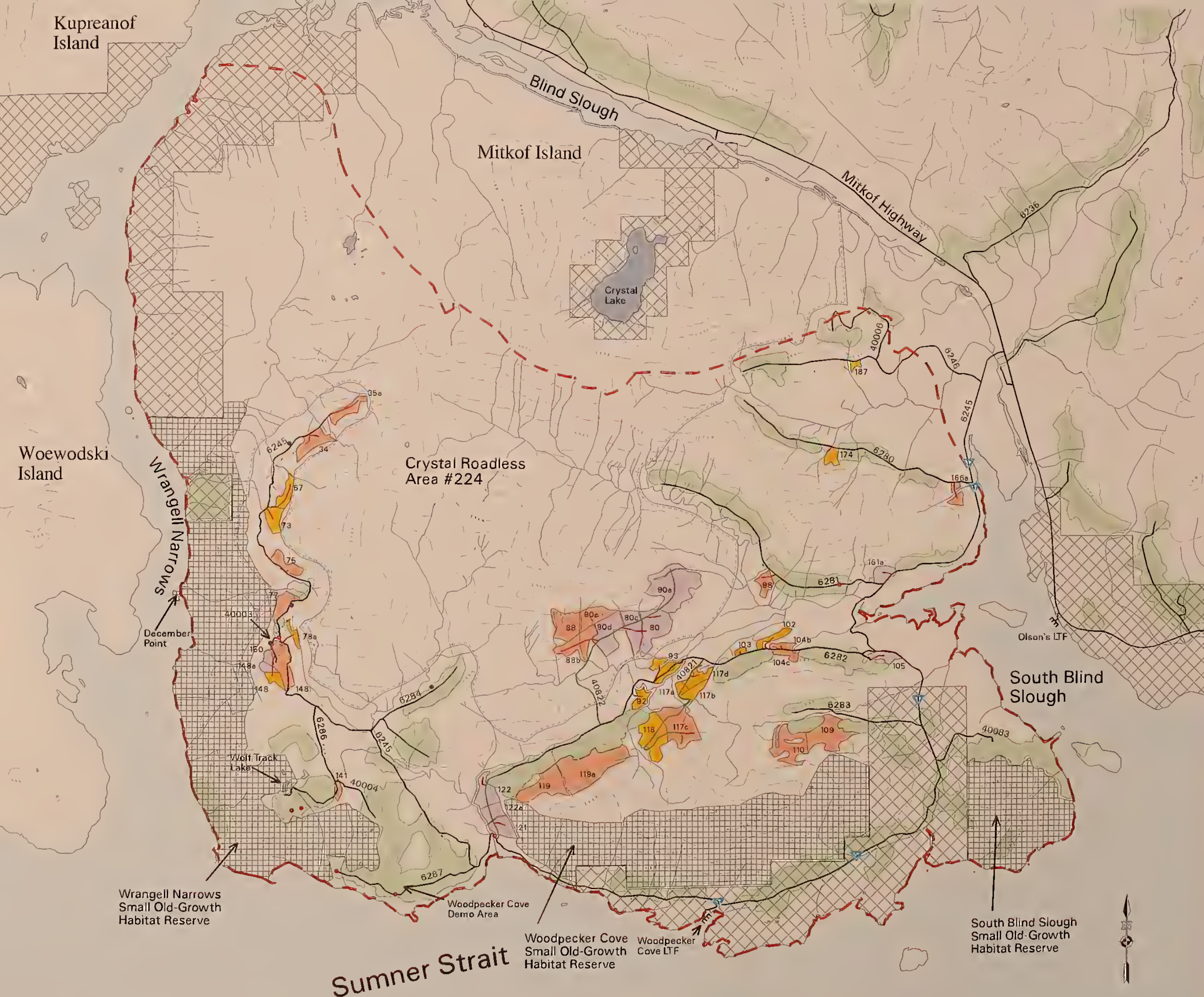
It is the responsibility of those who appeal a decision to provide the Regional Forester with sufficient written evidence and rationale to show why the decision by the Forest Supervisor should be changed or reversed. This written Notice of Appeal must:

1. State that the document is a Notice of Appeal filed pursuant to 36 CFR Part 215;
2. List the name, address, and, if possible, the telephone number of the appellant;
3. Identify the decision document by title and subject, date of the decision, and name and title of the Responsible Official;
4. Identify the specific change(s) in the decision that the appellant seeks or portion of the decision to which the appellant objects;
5. State how the Responsible Official's decision fails to consider comments previously provided, either before or during the comment period specified in 36 CFR 215.6 and, if applicable, how the appellant believes the decision violates law, regulation or policy.

For additional information concerning this decision, contact Patricia A. Grantham, District Ranger, Petersburg Ranger District, P.O. Box 1328, Petersburg, AK 99833, or call (907) 772-3871.


THOMAS PUCHLERZ
Forest Supervisor

August 13, 2001
Date



Woodpecker Project Area ROD-1 Record of Decision

LEGEND

- Partial Harvest Units
75 percent retention
- Partial Harvest Units
50-66 percent retention
- Partial Harvest Units
20-30 percent retention
- Existing Managed Stands
- Lakes
- Non-National Forest System Lands
- Small Old-Growth Reserves*
- Saltwater
- Crystal Inventoried Roadless Area
- Streams
- Project Area Boundary
- Existing Road
- Classified Road
- Temporary Road
- 500ft Contours
- Recreation Site
- Watershed Improvement Project**
- Reconstruction of Stream Crossing Structures**

* See Appendix 1 of the ROD (ROD-2)
** Covered by separate project decision



SOUTHEAST ALASKA VICINITY MAP
MAP AREA SHOWN IN ORANGE
Record of Decision

0 5280 10560

Scale is 1 inch = 5280 feet

Appendix 1

Non significant Forest Plan Amendment

Appendix 1

Non-significant Forest Plan Amendment

Small Old-growth Habitat Reserve Adjustments in VCUs 448 and 452

Based on the project level analysis as described in the Old-growth Habitat Management Prescription and Appendix K of the Tongass National Forest Land and Resource Management Plan (1997), three small old-growth habitat reserves located in VCUs 448 and 452 have been adjusted to better provide size, location and habitat composition as part of the old-growth habitat reserve strategy. Specifically, the Wrangell Narrows small Old-growth Habitat Reserve, in VCU 448, as mapped in the Forest Plan, lacked sufficient acreage to meet the Appendix K criteria. The two small old-growth habitat reserves in VCU 452 (Woodpecker Cove and South Blind Slough), when combined as mapped in the Forest Plan, meet the criteria for both total acreage and productive old-growth, but the adjustment will improve habitat composition and avoid inclusion of a classified road.

The Secretary of Agriculture's implementing regulation indicates the determination of significance is to be "[b]ased on an analysis of the objectives, guidelines, and other contents of the forest plan" (36 CFR 219.10(f)). The Forest Service has issued guidance for what constitutes a "significant amendment" under the National Forest Management Act (NFMA). This guidance, in Forest Service Handbook (FSH) 1909.12, Chapter 5.32, identifies four factors to be used in determining whether a proposed change to a Forest Plan is significant or not significant. These four factors are: timing; location and size; goals, objectives, and outputs; and management prescriptions. The Alaska Region issued a Supplement to FSH 1909.12, Chapter 5.32, effective October 17, 1990 that includes an additional factor that can be considered in determining the significance of a Forest Plan Amendment. This additional factor deals with technical changes. An analysis of the factors is presented below.

Timing

The timing factor takes into account when, during the life of the Forest Plan, the proposed change is to take place. Generally, the later the change in the life of the Plan, the less likely it is to be significant.

The Forest Plan revision was completed in 1997, so this change is proposed early in the life of the Plan. However, the Old-growth Habitat Management Prescription in the Forest Plan recognizes the small mapped reserves have received differing levels of field review and integration of site-specific information in their design. The intent of the Forest Plan was for project level environmental analysis, for project areas that

Non-significant Forest Plan Amendment

include or are adjacent to mapped old-growth habitat reserves, to evaluate the size, spacing and habitat composition of mapped reserves. Additionally, Forest Plan Appendix K gives specific instruction for how to make these changes. Clearly, modifications to the Old-growth Habitat Land Use Designation (LUD) were anticipated in the Forest Plan. For these reasons, I have determined that these proposed changes relevant to timing are not considered significant.

Location and Size

This factor takes into account the location and size of the area involved in the change, and the affected area's relationship to the overall planning area. Generally, the smaller the area affected, the less likely the change is to be a significant change in the Forest Plan.

The areas added to the small old-growth habitat reserves were taken from Scenic Viewshed and Modified Landscape LUDs adjacent to the existing reserves. The areas removed from the Old-growth Habitat LUD will change to the Scenic Viewshed or Modified Landscape LUD. The net change in total acres for the project area is a decrease of 390 acres for the Old-growth Habitat LUD, which is not considered significant with respect to the size of the overall planning area within the Tongass National Forest.

The boundaries of the old-growth habitat reserves were modified to better address the Forest Plan objectives for biodiversity and to improve connectivity between the medium old-growth habitat reserves north and south of the project area and other natural setting LUDs. The Wrangell Narrows small Old-growth Habitat Reserve in VCU 448 was modified to meet total size requirements and to incorporate some good wildlife habitat adjacent to some small ponds. The Woodpecker Cove small Old-growth Habitat Reserve was modified to include some of the higher volume old-growth stands in the project area. The South Blind Slough small Old-growth Habitat Reserve was modified by deleting the northern part of the South Blind Slough small Old-growth Habitat Reserve which included some young-growth stands and Road 6245, the main travel route through the project area.

Goals, Objectives, and Outputs

This factor examines whether the change alters long-term relationships between the levels of goods and services projected by the Forest Plan. In most cases, changes in outputs are not likely to be a significant change in the Forest Plan unless the change would forego the opportunity to achieve an output in later years.

Goals

The Forest Plan goal for Biodiversity is to maintain healthy forest ecosystems; and, to maintain a mix of habitats at different spatial scales (i.e. site, watershed, island, province and forest) capable of supporting the full range of naturally occurring flora, fauna, and ecological processes native to Southeast Alaska. The adjustment to these three reserves is consistent with the goals of the Forest Plan.

Non-significant Forest Plan Amendment

Objectives

The Forest Plan objectives are to maintain a Forest-wide system of old-growth forest habitat (includes reserves, non-development LUDs, and beach, estuary and riparian corridors) to sustain old-growth associated species and resources; and, to ensure that the reserve system meets the minimum size, spacing and composition criteria described in Appendix K of the Forest Plan. The adjustments to these three reserves were specifically designed to meet the Forest Plan Objectives.

Outputs

Adjustment of these three reserves will have a relatively minor effect on the Forest Plan outputs on a Forest-wide basis, primarily because the change in the acres of LUDs that allow scheduled timber harvest is relatively small. There was a net increase of 50 acres of forest lands classed as suitable for timber production on 470 acres of development LUDS within this project area, which is negligible when considered across the Tongass National Forest.

Management Prescriptions

This factor accounts for whether the change in a management prescription is only for a specific situation or whether it would apply to future decisions throughout the planning area. It evaluates how the change alters the desired future condition of the land and resources or the anticipated goods and services to be produced.

None of the standards and guidelines associated with the Management Prescriptions has been changed as a result of this amendment. The changes to the three mapped small Old-growth Habitat reserves apply only to this specific situation. These changes also would apply in future management, however this action does not preclude future modifications being made so long as the standards and guidelines for the management prescription are achieved. The proposed amendment fulfills the desired future condition for the Old-growth Habitat LUD Management Prescription as defined in the Forest Plan and would not significantly affect the goods and services produced.

Technical Changes

Technical changes to a Plan's management direction may be made on the basis of new information about the actual resource characteristics of the area. This category does not apply to this case.

Cumulative Changes

The Woodpecker Project Area EIS is one of twelve National Environmental Policy Act (NEPA) decisions as of August 2001, to make nonsignificant amendments to the Forest Plan by modifying LUD boundaries. These changes are tracked with a monitoring question posed by the Forest Plan and are part of the Annual Monitoring & Evaluation Report.

Non-significant Forest Plan Amendment

The Niblack Environmental Assessment (EA) changed a Wild River nondevelopment LUD to Old-Growth Habitat and Timber Management LUDs. The other amendments involved enlargement or reduction of Old-Growth Habitat LUDs, usually exchanging acres with one of the development LUDs in order to more effectively meet Forest Plan objectives. Usually, wherever an Old-Growth Habitat LUD was expanded, there was a corresponding reduction of acres suitable for timber harvest. Likewise, an Old-Growth Habitat LUD size reduction usually meant an increase in suitable acres. Often non-forest or low-productive forest land is included in the modification of the shape of a small old-growth habitat reserve due to the natural fragmentation of the forest in southeast Alaska.

While the LUD changes within each project decision constituted nonsignificant Forest amendments, Table Appendix 1-1 displays the accumulated effect on suitable acres for all projects. For each project the table displays acres that were changed from a nondevelopment LUD to a resource development LUD, or from a development LUD to Old-Growth Habitat and the net change in acres suitable for timber management. The net change in suitable acres represents less than 1 percent of the suitable land base.

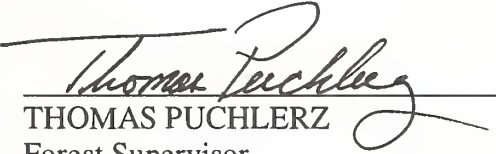
Table A1-1. Effects of Forest Plan Amendments on Acres Suitable for Timber Harvest as of June 2000

Project	Nondevelopment to Development LUD	Development to Nondevelopment LUD	Net Change in Suitable Acres
Woodpecker EIS	930	460	+470
Salty EA	99	126	-27
Luck Lake EIS	257	794	-537
Doughnut EA	0	19	+14
Kuakan EIS	416	542	-126
Sea Level EIS	185	500	-315
Canal Hoya EIS	0	151	-151
Chasina EIS	0	78	-78
Control Lake EIS	446	142	+304
Crystal Creek EIS	481	1,153	-672
Nemo Loop EA	177	932	-755
Todahl Backline EA	2	363	-361
Niblack EA	252	0	+252
Total	3,245	5,260	-1,982

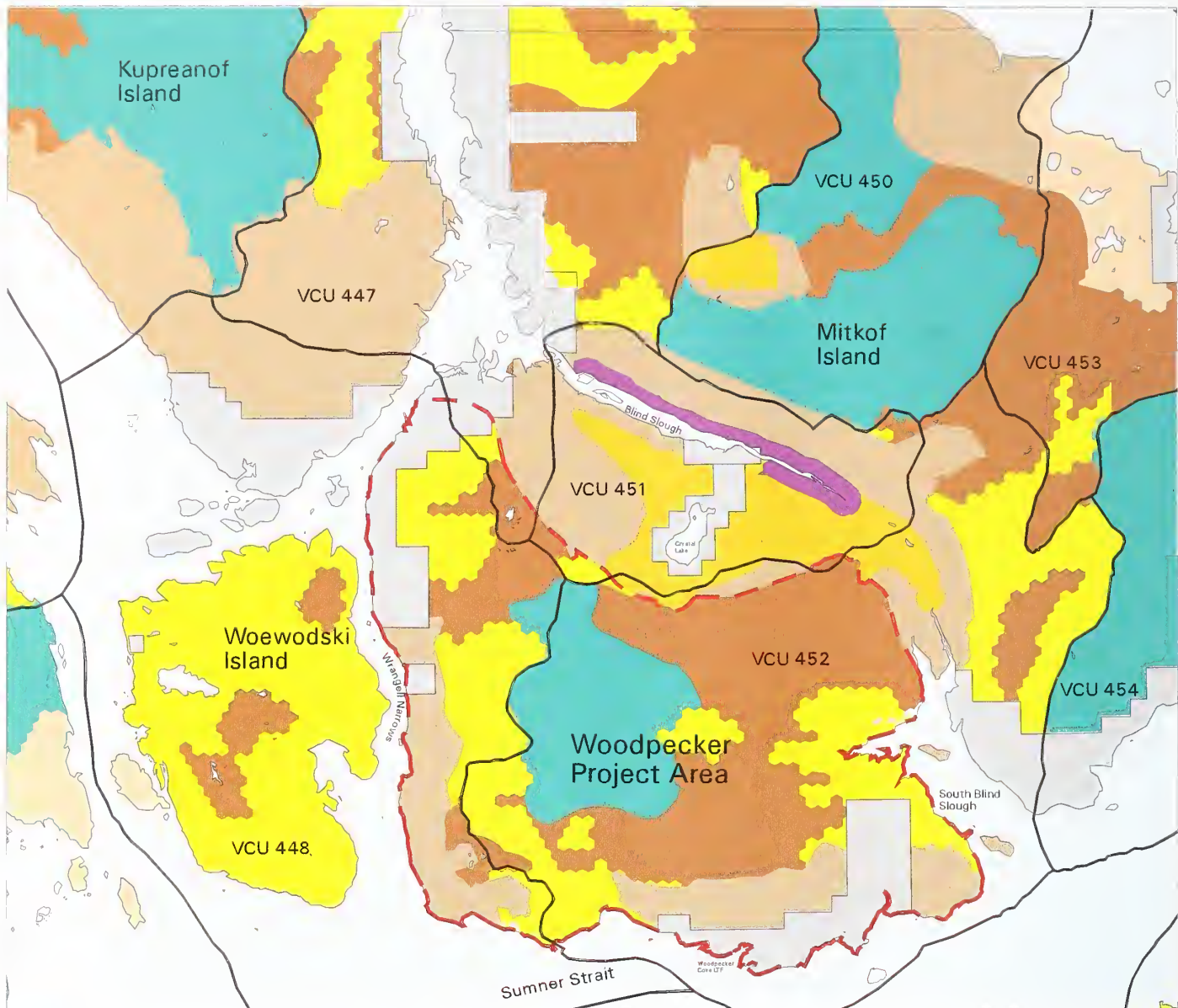
Conclusion

Based on a consideration of the factors above, I conclude adoption of this amendment is not significant in the context of the National Forest Management Act. This amendment is fully consistent with current Forest Plan goals and objectives. The amendment provides added detail on implementation of the Old-growth Habitat Management Prescriptions of the Forest Plan.

I hereby amend the Forest Plan with this non-significant amendment by adjusting the Wrangell Narrows, Woodpecker Cove, and South Blind Slough small Old-growth Habitat Reserves as shown on the Record of Decision Map and documented in the project planning record for the Woodpecker Project Area Final EIS (see Figure R-2).


THOMAS PUCHLERZ
Forest Supervisor

August 13, 2001
Date



-  PROJECT AREA BOUNDARY
-  MODIFIED LANDSCAPE
-  NON-NATIONAL FOREST
-  OLD GROWTH HABITAT
-  SPECIAL INTEREST AREA
-  SEMI-REMOTE RECREATION
-  SCENIC VIEWSHED
-  TIMBER PRODUCTION
-  RECREATION RIVER
-  LAKES/SALTWATER

Land Use Designations Woodpecker Project Area Forest Plan Amendment



ROD-2



Scale is 1 inch = 13288 feet

Appendix 2

Mitkof Island Roads Analysis Determination

Mitkof Island Area-Scale Roads Analysis Determination

Woodpecker Project Area

Introduction

The Forest Service Transportation Policy (FSM 7700, January 12, 2001) establishes requirements for roads analysis when planning to construct, reconstruct or close roads on National Forest System lands. The Tongass National Forest has prepared the Woodpecker Project Area Environmental Impact Statement to be consistent with the Forest Service Transportation Final Administrative Policy (Roads Rule). Among other direction, the Roads Rule requires that an area-specific roads analysis be completed and that a determination of need for amendment or revision of the Forest Plan be made if any roads are to be constructed or reconstructed in inventoried roadless areas or contiguous unroaded areas, until a forest-wide roads analysis has been completed (FSM 7712.16(c)). This road analysis process is located in the Woodpecker Project Area planning record at the Petersburg Ranger District. A separate interim directive (7710-2001-1) extends the deadlines for requiring roads analysis for all road management decisions to January 12, 2002 (FSM 7712.15), but does not apply to FSM 7712.16.

The following is a summary from the Mitkof Island Road Analysis, completed in January 2001 and available in the project records at the Petersburg Ranger District.

Area and Road System Description

Mitkof Island is a logical portion of the Forest to analyze transportation system needs. The island is approximately 135,000 acres, or 211 square miles in size. There is no road access to the island from either the mainland or other islands in southeast Alaska. Access to Mitkof Island and the city of Petersburg is via the Alaska Marine Highway ferry system, by commercial airlines or by private planes and boats.

The city of Petersburg is located on the northern tip of Mitkof Island. The 2000 census figures estimate a population of 3,224 within the city boundary. The city boundary extends approximately eight miles south of the downtown area; however, the majority of the population resides in a three to four square mile area on the northern tip of the island. The city streets were not considered in this roads analysis.

Mitkof Island Roads Analysis

The National Forest System lands on the island can be accessed along a 35-mile section of the state of Alaska Forest Highway 7, known as the Mitkof Highway, which runs in a north-south direction from one end of the island to the other. About 18 miles of this is paved and maintained year-round. The rest of Mitkof Highway is a double-lane gravel road and is maintained by the State. Numerous National Forest roads lead off of the main state highway, some of which are loop roads that lead back to the highway. An additional seven miles of city and state-owned roads lead to the forest; these are maintained by the city and state respectively.

There is a total of 129 miles of National Forest System roads on Mitkof Island, of which approximately 95 miles are open and drivable for either standard passenger vehicles or 4-wheel drive vehicles. The remaining National Forest System roads are closed to vehicle traffic (in storage) through drainage structure removal and/or alder growth across the roadway.

Forest Plan Objectives

The Mitkof Island road system supports the goals and objectives of the Forest Plan. The main transportation goal is to develop and manage a road system that supports resource activities based on long-term management. The objectives are to provide access, and manage and maintain roads to protect water, soil, fish and wildlife resources. The Forest Plan allows the construction of up to an average of 110 miles of roads annually in support of forest resource management activities forest-wide.

Land Use Designations (LUDs)

The Tongass National Forest Land and Resource Management Plan was revised in 1997. As part of this revision, management prescriptions or land use designations were assigned to various areas. These Forest Plan LUDs determine development and non-development uses. Development LUDs allow activities such as timber harvest and road construction. These activities are mostly incompatible within the non-development LUD classification. The Forest Plan LUDs for Mitkof Island described in the Forest Plan are shown in Table A2-1.

Most of the road miles located within non-development land use designations are major travel routes such as the Mitkof Highway or the Three Lakes Loop Road. Some of the roads are necessary to cross non-development LUDs to access areas of development LUDs where activities such as timber harvest are allowed, such as Roads 6246 and 40010.

During analysis for the Woodpecker Project Area, the small old-growth habitat reserves were modified. One of the modifications included avoiding Road 6245, which went through the South Blind Slough small Old-growth Habitat Reserve. All proposed road construction for the Woodpecker Project Area will be within development LUDs. Most of the road construction is to facilitate timber harvest operations, with the exception of a portion of the extension of Road 6282, which would connect with Road 6245 to create a loop road for recreational driving.

Table A2-1. Mitkof Island Land Use Designations

Land Use Designations	Acres	Miles of road
Development LUDs		
Timber Production	24,994	28
Modified Landscape	29,336	42
Scenic Viewshed	17,793	26
Total	72,123	96
Non-development LUDs		
Municipal Watershed	4,567	1
Old-Growth Habitat	18,986	10
Special Interest Area	4,550	5
Semi-Remote Recreation	8,105	0
Recreation River	1,285	5
Total	37,493	21
Other		
Non-National Forest Land (includes state and private)	24,926	53

Inventoried Roadless Areas

Most of the National Forest System roads were constructed in support of timber harvest in order to transport logs to either mills on Mitkof Island or saltwater for rafting to mills. The Forest Plan included an inventory of roadless areas on the Tongass National Forest that were identified during the Roadless Area Review and Evaluation done in the 1970s (RARE II). Of the 110 Inventoried Roadless Areas (IRAs) described in the Forest Plan FEIS, Appendix C, three of these areas are located on Mitkof Island; East Mitkof (#220), Manzanita (#223), and Crystal (#224). In addition to these three roadless areas, there are four other unroaded areas on the island smaller than 5,000 acres that were identified in the Forest Plan. These smaller areas are not contiguous with the Inventoried Roadless Areas (see Figure ROD-3). The three inventoried roadless areas on the island and their respective LUDs and sizes are shown in Table A2-2 and Figure ROD-3.

About two-thirds of the Woodpecker Project Area is within the Crystal Inventoried Roadless Area. This includes the portion allocated to development LUDs. Timber harvest has been proposed within the roadless area and two miles of classified road would be constructed within the roadless area. Approximately 0.8 miles of this road would be left open for public use for high clearance vehicles.

Mitkof Island Roads Analysis

Table A2-2. Land Use Designations within Inventoried Roadless Areas (acres) on Mitkof Island

Land Use Designations	Inventoried Roadless Area Name and Number		
	East Mitkof #220	Manzanita #223	Crystal #224
Development LUDs			
Timber Management	2,360 acres	4,190 acres	4,320 acres
Modified Landscape	680 acres	1,160 acres	3,790 acres
Scenic Viewshed		1,530 acres	3,470 acres
Non-development LUDs			
Old-growth Reserve	2,840 acres	1,550 acres	3,450 acres
Special Interest Area			2,880 acres
Recreation River			410 acres
Semi-Remote Recreation	2,170 acres		
Other			
Non-national Forest ¹ (includes state and private)	770 acres		

¹ These acres were included in the roadless analysis for the Forest Plan. Since that time, they have been conveyed to the state of Alaska. They are no longer considered eligible for management as a roadless area and are only shown for tracking purposes.

Mitkof Island Road Management

Local forest road users have become accustomed to open access to all forest roads. Travel management decisions need to be communicated to the public in order to be fair, consistent and effective. Recent road maintenance budgets have not been adequate to maintain all of the open roads on the Petersburg Ranger District. Decreasing timber production has also brought a reduction in sharing of road maintenance costs between the Forest Service and timber purchasers. Therefore, it is increasingly important to prioritize which roads are necessary for on-going administrative duties and for public use. Other roads can be put into storage by removing drainage structures. These roads can be re-opened when future needs are identified.

MITKOF ISLAND LAND USE DESIGNATIONS WITH INVENTORIED ROADLESS AREAS

LEGEND

Development LUDs

- TIMBER PRODUCTION
- MODIFIED LANDSCAPE
- SCENIC VIEWSHED

Non-Development LUDs

- MUNICIPAL WATERSHED
- OLD GROWTH HABITAT
- SPECIAL INTEREST AREA
- SEMI-REMOTE RECREATION
- RECREATION RIVER
- WILDERNESS

- NON-NATIONAL FOREST
- FOREST PLAN INVENTORIED ROADLESS AREAS
- FOREST PLAN UNROADED AREAS LESS THAN 5000 ACRES
- LAKES/SALTWATER
- EXISTING ROADS
- PROJECT BOUNDARIES



SOUTHEAST ALASKA VICINITY MAP
MAP AREA SHOWN IN ORANGE

ROD-3

0 10725 21450

Scale is 1 inch = 10725 feet

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Mitkof Island Roads Analysis

On Mitkof Island, certain parts of the forest road system are more heavily used, such as roads that form a loop with the Mitkof Highway or that provide access to a popular destination such as the Twin Creeks winter recreation area. Other roads receive less use. Some are used mostly during the two-week deer hunting season.

Forest roads on the island that are open to vehicle traffic are in two categories; those maintained for standard passenger vehicles, and those that are maintained to be drivable only for high clearance vehicles such as pickup trucks. All of the open classified road miles would receive periodic roadside brushing to maintain driving sight distance and annual drainage structure maintenance. Figure ROD-4 identifies all classified roads on the island and their respective desired future conditions. The three types of forest roads include those gravel or natural surface roads that are open to standard passenger vehicles (Maintenance Level III), those open to high clearance vehicles (Maintenance Level II), and roads in storage and closed to traffic (Maintenance Level I). There are no Maintenance Level IV roads. The paved parking lot at Blind River Rapids is Maintenance Level V. The Highway Safety Act is applied to Maintenance levels III through V and regulates signing and other safety standards.

Closing roads can be controversial since the public uses forest roads to access recreation areas and tends to value being able to drive forest roads as a recreational activity in itself. Others favor closing all forest roads, viewing roads as a detriment to wildlife or as a threat to their livelihood (such as commercial fishing) due to road-related introduction of sediment into streams. The 1995 Mitkof Landscape Design recommended continuing the practice of allowing roads to close naturally. This practice has previously been used extensively on the Tongass National Forest, and has recently been called into question. Naturally closing roads allows alder growth, wind-thrown timber and naturally occurring slides to remain in place until a project such as a timber sale, recreation or fisheries project re-opens the road. Allowing roads to close naturally, while leaving drainage structures in place, has created the potential for erosion and subsequent water quality concerns downstream. In part due to the increased awareness of the potential effects of roads on water quality, the natural closure method for roads has been revised to include drainage structure removal and the addition of water bars to aid in controlled runoff.

Normally it takes longer than 10 years for natural alder growth to physically close a road. During that time, use of the road by the public can extend this time period up to the point that it may never actually close. Since resuming the sport and subsistence deer hunt on the island in 1991, road closures by alder have slowed considerably since hunters tend to drive all of the available drivable roads. In the future, planned road closures on newly constructed roads will immediately follow timber harvest unless there is a compelling reason to keep them open on a short-term basis, such as the opportunity for firewood removal or reforestation. The closures will most often involve removal of all drainage structures, including culverts and bridges, with the addition of strategically placed water bars impassable to motor vehicles.

Mitkof Island Roads Analysis

Roads that are to remain open will either have a relatively smooth surface and be suitable for passenger vehicles or will have a surface more suitable for high clearance vehicles, with rolling dips and drivable water bars similar to speed bumps. In addition, roads that have naturally grown closed to vehicle traffic will have culverts and bridges removed and will be physically blocked to prevent further vehicle use. Natural drainage patterns will be restored if the road is not needed in the future for National Forest management. Though this could be controversial for those forest road users that desire more driving opportunities, it is in line with the national recognition that roads that receive little maintenance can contribute to erosion and subsequent water quality problems and that maintenance should be limited to those roads that are needed for public and administrative access. Foot traffic on roads closed to vehicles will continue to be allowed. Once these closed roads are physically closed and placed in storage, road maintenance funding can be better used on the remaining open roads.

A Road Management Objective (RMO) is used to describe, identify, and categorize the level of intended use. The RMO includes general design criteria, maintenance criteria, and operation criteria plus a narrative that explains the route and what the uses the road provides. During an environmental analysis, the interdisciplinary team proposes an RMO based on resource concerns and opportunities and public comments. This RMO is then approved by the District Ranger. These RMOs are dynamic and can be updated as use, resources, or funding changes. The Mitkof Island Road Analysis (2000) and the Mitkof Landscape Analysis (1995) both developed RMOs for Mitkof Island. During every project-level analysis, the RMOs for the area are reevaluated and included in the project's decision document.


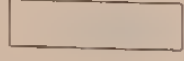







Current Planning Efforts

There are two Forest Service projects that involve timber harvest and road construction currently in the planning stages of environmental analysis on Mitkof Island. The entire island has had intensive road-related analysis in support of these planning efforts. The 32,590 acre Woodpecker Project Area is located in the southwestern corner of the island, and includes about 2/3 of the 18,320-acre Crystal Inventoried Roadless Area (#224). The 8,400 acre Overlook Project planning area is located near the middle of the island, and includes a portion of one of the smaller non-contiguous unroaded areas. There are five other areas on the island currently listed on the 10 year timber sale plan that have not yet begun the NEPA process. Other areas that have a land use designation where timber harvest is allowed as determined by the Forest Plan may be added in the future. The National Forest System lands with development LUDs may have road construction in the reasonably foreseeable future on Mitkof Island.

The State of Alaska Department of Transportation and Public Facilities is in the preliminary planning stages for a new ferry terminal on the south shore of Mitkof Island. To access this terminal, some upgrade of the state highway will be necessary and the road would need to be maintained year-round. Though some new additional use of Forest Service roads may occur, preliminary analysis suggests that the traffic generated from the use of the ferry terminal would be concentrated along the state highway rather than on the forest road system.

MITKOF ISLAND RECOMMENDED ROAD MAINTENANCE LEVELS

LEGEND

-  Non-NF Lands
-  Lakes/Saltwater
-  Closed Roads in Storage (Maintenance Level I)
-  Open to High Clearance Vehicles (Maintenance Level II)
-  Open to Passenger Vehicles (Maintenance Level III)
-  ATV Roads
-  Non Forest Service Roads
-  500ft Contours
-  Class I and II Streams



SOUTHEAST ALASKA VICINITY MAP
MAP AREA SHOWN IN ORANGE

ROD-4

0 10725 21450

Scale is 1 inch = 10725 feet

Mitkof Island Roads Analysis

Social and Environmental Issues

Mitkof Highway is the main route from the city of Petersburg. It is managed by the state of Alaska, Department of Transportation and Public Facilities. It provides access to many Forest Service recreation sites, such as Ohmer Creek Campground and Blind Slough Picnic Area. Currently 18 miles are maintained for year-round use. There are plans to upgrade another section after the completion of the South Mitkof Ferry Terminal.

Roads are the link most often used for access to the forest on Mitkof Island. The following issues and concerns are relevant to Forest Service road use. Some of these topics are important to land managers, some are important to the public, and some are important to everyone.

Recreation Site Access

Some of the most popular recreation places on Mitkof Island are accessed by the Forest Service road system. Road 6235, the Three Lakes Loop Road, a scenic drive in itself, provides access to the Threes Lakes Recreation Site, which is a series of trails and lakes with rowboats provided by the Forest Service. One of the trails also provides access to Ideal Cove. Road 6235 also provides access to LeConte Overlook, a small picnic area with a view of LeConte Glacier on the mainland. Road 6209, the Twin Creek Road, provides access for winter sports, such as cross-country skiing and snowmobiling. Ski trails connect to this road and two public day-use shelters are in the area. The Snake Ridge Road (Road 6246) provides good views of the Blind Slough area and provides access for those who want to hike to the top of Crystal Mountain, the highest point on Mitkof Island. The Woodpecker Road (Road 6245) provides access to Woodpecker Cove LTF which is used as a kayak and small boat launch. All of these roads are recommended to be kept open with a maintenance level suitable for passenger vehicles.

Recreational Driving

Although the Mitkof Island road system is isolated and not connected to the mainland and the rest of the country's road system, most people own or have access to a motor vehicle. Few vehicles are "highway only" passenger cars and can be driven on gravel roads without major damage. Most of the popular driving routes include roads that "loop". These roads do not dead-end so that the route does not have to be retraced. These roads include the Three Lakes Loop Road (Road 6235), the Froot Loop Road (Road 40000), and the Frederick Point Road (Road 6204). Of these, the Three Lakes Loop Road is the best maintained. Road 6204 is maintained for passenger vehicles. The Froot Loop Road is currently only suitable for high clearance vehicles but its desired future condition to be maintained for passenger vehicles.

Subsistence use

Petersburg residents rely strongly on subsistence resources to enhance their lifestyle. The road system supplements boats in providing access to fish and game, firewood, berries and other forest products. One of the most important roads used for hunting is Road 6245, which provides access to the Woodpecker Project Area, where about 44 percent of the deer harvested on Mitkof Island are taken. Dry Strait Road (Road 6241) provides beach access for waterfowl hunting. Several roads, including Roads

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6235 and 6245, provide access to freshwater fishing opportunities. Many of the main roads have good berry picking areas. The Snake Ridge Road accesses a source of western redcedar which is at the northern part of its range on Mitkof Island. Between 1972 and 1992, deer hunting was closed on Mitkof Island, following a deer population crash. During this time, some of the shorter dead-end roads became closed over by alder. Since the deer hunting season resumed and moose have appeared on the island, more road use has occurred to access remote areas for hunting, and roads are not closing naturally. This may lead to erosion since maintenance funds are limited and directed to the main routes. Some of these roads are proposed for closure by removing drainage structures and/or ditching at the entrance to prevent resource damage. The Woodpecker Project analysis proposes to close about 10 miles of these roads – Roads 6280, 6281, 6283, 6284, 6287, and 40083.

Off-highway vehicles (OHVs)

There are no designated OHV trails on the island, yet most roads are used by OHVs. Some users would like to see designated OHV trails. Others would like to see them banned from open roads for safety purposes. Two roads on Mitkof Island are proposed for OHV use; these are Road 6221 and Road 6226.

Fish Passage

Recently, there has been a concern that not all of the stream crossing structures provide adequate fish passage. Of the 80 intersections between fish streams and roads on Mitkof Island, 38 crossings were found not to provide fish passage to the extent recommended by Alaska Department of Fish and Game (ADFG), which is to maintain fish passage 97 percent of the year. Most of these sites are located on major travel routes, such as Roads 6235, 40000, 6245, 6204 and 6241. A recent contract will reconstruct 29 of the highest priority sites, with the remainder planned to be corrected at a later date. Within the Woodpecker Project Area, four of the five stream crossing sites on Road 6245 are included in this contract. Future stream crossing structures will be designed to meet standards agreed upon between the ADFG and the Forest Service.

Wildlife

Road access can directly affect wildlife populations through hunting pressure, poaching, road kill, and denning, nesting and rearing disturbance. Since forest roads are designed for travel at slower speeds than Mitkof highway, few direct collisions occur with deer and other animals on forest roads.

The Forest Plan recommended an open road density of 0.7 to 1.0 miles per square mile where Alexander Archipelago wolf mortality concerns were identified. Mitkof Island has no wolf mortality concerns. The wolf population is stable, with a few trapped or shot every year. A marten telemetry study on the island showed that marten near a road were more often trapped. In general, the Mitkof Island road system does not have a major impact on the area's wildlife.

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Erosion

Some of the roads built in the 1970s, such as Road 40083 and Road 6283 were constructed with less rock and less drainage structures than today's standards. The Road Condition Survey reported locations where surface erosion was occurring. This erosion results in rutting, surface water, and blocked culverts. Because these roads are mostly closed by alder growth, it is often impossible to properly maintain them. The Mitkof Island Road Analysis recommends closing them by removing the drainage structures, restoring natural drainage, and prohibiting motorized traffic. Roads 6280, 6281, 6283, 6284, 6287, and 40083 within the Woodpecker Project Area will be closed by this method.

Cut and fill slope erosion was also noted during Road Condition Surveys. Although these slopes are seeded at the time of construction, sometimes vegetation is not successfully established. Alder planting is sometimes necessary to stabilize the bank. Several areas were identified during the Woodpecker project analysis and have been recommended for seeding or planting if necessary.

Road Failures

Slides from the roadbed material occur during severe storms and debris flows sometimes exacerbated by a partly blocked or crushed culvert. Sometimes, debris flows caused by upslope events are of a magnitude that cannot be prevented, such as the one that occurred on the Three Lakes Loop Road in 1993. Several road failure slides have occurred within the Woodpecker Project Area during 1999 and 2000. The failures on Roads 6245 and 6286 are currently under contract to be repaired. The slides on Road 6282 will be evaluated this year.

Interagency and Public Coordination Efforts in Support of the Road Analysis

The Mitkof Island road analysis process has been in progress for over a year. Several public meetings in Petersburg displayed the Mitkof Island road system with opportunities for the public to respond to road issues. Prior to this, the 1995 Mitkof Island Landscape Analysis compiled numerous road related comments that were incorporated into the more recent analysis.

Maintaining fish passage through drainage structures along forest roads is a common goal that has brought several agencies together. The Alaska Department of Fish and Game (ADFG) has been working closely with the Forest Service in regard to fish passage through road drainage structures during the last several years. Other agencies involved in establishing fish passage protocol include the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Transportation and Public Facilities (ADOTPF). Results from the multi-agency protocol along with Road Condition Surveys have helped produce the list of drainage structures on Mitkof Island that may impede fish passage. This has led to several reconstruction projects on the island to restore fish passage.

The Alaska Marine Highway System has proposed construction of a new ferry terminal on the southern shore of Mitkof Highway. The environmental analysis for

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this project has just begun; however, indications point to possible sites on state of Alaska lands that lead directly onto Mitkof Highway. During the road analysis procedure, communication between the Forest Service and ADOTPF was maintained in order to incorporate the site of the new terminal and any potential effects from increased traffic as part of the road analysis.

The Forest Service has supported the city of Petersburg in its effort to apply for Federal Highway funding for the upgrade of the 7-mile-long Frederick Sound Loop Road. This road, located on city and state land, was completed in 1999 and is currently a single-lane gravel road with turnouts. The primary reason for its construction was to provide access to the new city of Petersburg water reservoir and access for residents of the Frederick Point subdivisions.

Information Sources

Several other recent efforts have generated natural resource and development related information, in addition to the analyses associated with the revision of the Forest Plan, the Woodpecker Project Area EIS and the Overlook Project EA. The 1995 Final Mitkof Landscape Design represented a two year process of community involvement through workshops, interviews and mailings. The Twin Creek Environmental Assessment (May 1998) included analysis of the northern part of the island. Information gathered during the analyses is stored in the district and Forest databases and is periodically updated.

The most recent information associated with the Woodpecker and Overlook planning efforts are located in the project planning records. Road related analyses for these project areas have determined where roads are appropriate and whether the roads proposed are needed for short-term or long-term management of the project areas. These are documented as Road Management Objectives and will be stored in the Forest Roads Atlas via the Geographic Information System (GIS) and the integrated information application that is used in support of travel routes among other items (INFRA) as appropriate.

Opportunities for the Mitkof Island Transportation System

The following opportunities represent a summary of ideas, goals, and potential projects as a result of the road analysis:

- Providing hardened ATV trails to help keep all terrain vehicles from traveling off of the forest roads and leaving indelible marks in muskegs.
- Remove log bridges and culverts to provide user safety.
- Some older roads that have had little maintenance since last used need corrective action to restore natural drainage and provide fish passage.
- Temporary roads constructed for one-time use during timber sales should be surveyed using the same Road Condition Survey protocols as the classified

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roads. Problems identified on these roads should be planned for remedial work.

- Continue to repair/replace fish passage barrier drainage structures.
- Monitor forest road use before and after the South Mitkof Ferry Terminal is constructed to quantify any increased traffic and any associated impacts.
- Identify all roads that are being used by wheeled traffic. Closed roads, Maintenance Level 1, that still receive traffic should be either physically closed (placed in storage) to prevent resource damage or be re-opened with proper drainage structures installed.
- Discuss with the city of Petersburg the need for Road 6206 within the Cabin Creek watershed.
- Work with the city of Petersburg on the Forest Highway Roads Program.
- Continue efforts to include Mitkof Island in the Forest Service Public Roads program.
- Decommission the identified former temporary roads that were not closed to traffic after completion of their intended use.
- Convert the former temporary roads leading to the sand pit and moose hunting camp sites to classified road status.

Minimum Road System

The new Forest Service Transportation Policy (FSM 7700, January 12, 2001) requires a determination of the minimum road system needed to meet resource and other management objectives relevant to the Forest Plan. Figure ROD-4 represents the current minimum road system needed for Mitkof Island.

At times, during timber harvest activities, some of the roads shown as closed (in storage) may be open for use. Also, special use permittees, timber purchasers, and cooperators may require the use of new constructed roads, both classified and temporary in addition to the roads shown on the map. Upon termination of the contracts and/or permits allowing such use, temporary roads will be decommissioned and returned to a natural state, and will not become part of the long term transportation system. The need for classified roads will be analyzed as part of the environmental documentation and will include public involvement. Some future roads may be built and left open and some currently maintained, open roads may be proposed for closure depending on the results of those analyses. However, the amount of open forest roads on the island will remain relatively constant as shown in Table A2-3.

The Woodpecker Project Area Final EIS proposes to build 4.8 miles of classified road for long-term use within the project area. Of these miles, 0.8 miles are to be used as a loop road connection and will remain open for use by standard passenger vehicles. Another one mile of new road will be constructed and maintained for high-clearance

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vehicles. The rest of the classified roads will be closed and maintained in a storage condition. In addition, about 3.8 miles of temporary roads will be needed to facilitate timber harvest. All of these temporary roads will be closed and decommissioned to be allowed to return to a more natural state. Ten miles of existing classified roads have been identified as not being currently needed and will be closed and put into a storage condition. These roads will still be part of the long-term forest road transportation system. Roads proposed for the Overlook Project Area have not gone through the public involvement process at this time.

Table A2-3 Minimum Road System for Mitkof Island (miles)¹

	Open to Passenger Vehicles	Open to High Clearance Vehicles	Closed in a Storage condition
Classified roads	76.7 miles	17.9 miles	27.8 miles

¹ Includes miles of road for the Woodpecker Project Area but not the Overlook Project Area.

Forest Plan Consistency Determination

The amount of road system necessary to implement sound multiple use management of National Forest System lands is based on the Forest Plan (1997, as amended) and identified community needs. The activities proposed for road construction and maintenance in the Woodpecker Project Area respond to the Forest Plan goals and objectives to provide forest access for forest users and to protect water, soil, fish, and other resources. The amount of road construction proposed (4.8 miles) when combined with other proposed roads Forest-wide is well within the Forest Plan objective of up to 110 miles annually. This road system works toward the desired future condition of a well-maintained transportation system that meets the needs for National Forest management and public use. Road Management Objectives have been updated to reflect any changes needed in road maintenance levels within the project area. Roads have been chosen to be closed based on resource concerns, public use, and funding. Conflicts with roads and land use designations have been resolved. All new road location and design will meet the Forest Plan standards and guidelines (Forest Plan, page 4-104 to 4-110). Stream crossing structures have been analyzed for safety and resource concerns.

Based on the above information, especially in relation to the Forest-wide transportation system needs and the land use designations in the current Forest Plan, I have determined that no revisions or amendments to the Forest Plan are needed to be consistent with the Forest Service Transportation Policy (FSM 7700, January 12, 2001).


THOMAS PUCHLERZ
Forest Supervisor

August 13, 2001
Date

Appendix 3

Activity Cards for Selected Alternative

Introduction to Activity Cards

Activity cards are used to explain site-specific proposed projects and any resource concerns and mitigations. These activities include: 1) timber harvest units, 2) proposed and existing roads needed for timber harvest, and 3) development of recreation sites. Both narratives and maps showing site-specific information are provided.

The first section, Introduction to Unit Cards, explains the harvest treatments for this entry plus the long-term objectives. Following that is a summary of which measures can be used to mitigate resource concerns. These mitigation measures can be either from the Forest Plan or project-specific.

The Introduction to Unit Cards is followed by a narrative card and a map for each harvest unit in the Selected Alternative. These units are in numerical order, but not all the units from the original unit pool were included. The maps show all proposed adjacent units in the Selected Alternative.

The second section describes the current condition of existing roads and proposed management for existing and proposed roads. The Introduction to Road Cards explains the terminology used for the Road Management Objective narratives. A map showing all the roads and their desired future management is also included.

The Road Management Objective (RMO) cards for the existing roads are listed first. These are in numerical order, but the major roads (the 6000 series) are listed before the lower standard roads (the 40000 series). Some of these roads also have a site-specific design criteria narrative, if needed. The new classified roads have an RMO card, a site-specific design criteria card, and a map.

The Recreation Cards consist of a narrative and a map. Design narratives for each proposed project will be completed during implementation. The proposed projects include dispersed campsites, picnic sites, a trail, and turnouts for parking.

Unit Cards for Selected Alternative

Unit Card Header Information

Each unit card has a header block with the following information. This information is used to generally describe the stand's size, location, and volume removed.

Unit size – estimate of acres using aerial photos and GIS information. No units have been flagged on the ground or traversed at this time.

Aerial Photo – the identification number of the most recent aerial photograph taken in 1998-1999.

Volume Strata – This is the number of acres broken out by volume strata. Volume strata is defined in the Forest Plan and explained under Vegetation in Chapter 3 of this EIS. If the acres do not add up to the total unit size, some non-forest acres are within the unit.

VCU – the Value Comparison Unit as determined by the Forest Plan

Land Use Designation - the management prescription allocated by the Forest Plan

Est. Timber Volume – an estimated number of board feet to be harvested. This was derived from GIS and field estimates. A cruise will be done during implementation to determine a more accurate volume.

Within Inventoried Roadless Area? – whether the unit is within the Crystal Inventoried Roadless Area.

Harvest Treatments

The harvest treatment descriptions on the unit cards are basic guidelines to achieve resource concerns and logging system operability for the unit. The harvest treatments describe the appearance of the residual stands after harvest. It includes the amount of retention and whether trees will be removed or retained in patches or dispersed throughout the stand. A more detailed explanation of the harvest treatment is listed below.

Silvicultural Systems

Silvicultural systems have been developed to meet the management objectives based on the site and Forest Plan direction. These objectives include retaining stand legacy or old-growth characteristics to maintain biodiversity, economics, logging feasibility and protection of the soil, watershed, wildlife habitat, and scenery values of the proposed unit. Adjacent areas were taken into consideration when developing these objectives.

A complete silvicultural prescription for the entire length of the rotation will be written for each stand selected for harvest. These prescriptions provide guidance for treatments following this proposed timber harvest, including subsequent entries, cedar interplanting, thinning, pruning, and fertilization through the entire rotation.

Silvicultural prescriptions will include these unit cards plus the sale layout and marking guidelines and will be completed for each of the timber harvest units that are included in the Woodpecker Project Area Record of Decision. Minor changes are expected during implementation to better meet on-site resource management and protection objectives. Minor adjustments to unit boundaries are also likely during final layout for the purpose of improving logging system efficiency or for site conditions.

These cards will be used during the implementation process to assure that all aspects of the project are implemented within applicable standards and guidelines. If needed during sale implementation, an interdisciplinary team will discuss any changes. Subsequent analysis and supplements to the EIS may be needed, as determined by the Responsible Official. Similar cards will be used to document any changes to the planned layout as the actual layout and harvest of the units occurs with project implementation.

The harvest treatments found on the unit cards are descriptions of what will occur under various silvicultural systems. Three silvicultural systems based on the number of age classes (uneven-aged, two-aged, and even-aged) and four regeneration methods (group selection, single tree selection, clearcut with reserves, and clearcut) were used to develop these harvest treatments. The harvest treatment for a proposed unit for the Woodpecker Project Area is the initial entry for the silvicultural prescription.

Uneven-aged Management

An uneven-aged silvicultural system with a regeneration method of group selection is described in the unit cards as a harvest method where 50 – 66 percent or 75 percent of the stand is retained. Trees are to be removed in 2-acre or less openings and corridors, and 3-acre or less openings and corridors.

Removal of patches of trees

Merchantable trees (trees greater than 9 inches in diameter) would be harvested in small patches to form a mosaic of irregularly shaped openings within the stand. Smaller trees may be left in this area if the larger trees can be safely removed. Each group harvested would consist of a mixture of tree sizes. Groups of trees infected with dwarf mistletoe would be targeted for removal to avoid infection for the regeneration. Groups with windfirm characteristics are a high priority to leave. Each harvested opening will regenerate, creating a patch of trees with a uniform age and height. This will maintain or create a stand of three or more distinct size classes in small groups. At the end of the rotation, the result will be an uneven-aged stand.

These groups will provide small foraging areas interspersed with cover. The large trees provide habitat for cavity nesters and marten. The appearance of the residual stand mimics natural blowdown patches.

All three logging systems can be used to harvest the trees within the groups. Cable yarding results in a more linear pattern up-and-down the slope to form a corridor. There is more flexibility for yarding uphill since there is more control over the tree being removed. Shovel yarding can harvest groups, but these groups would either be connected by a narrow path or adjacent to the road. Helicopter is the most flexible yarding system for yarding groups. Three types of removal based on size of patches and the amount of trees to be retained were recommended for the Woodpecker Project Area.

75 percent retention

Twenty-five percent of the area within the unit would be harvested in patches two-acres or less in size. The selection of these patches will also be based on the basal area of the stand, resulting in the same percentage of basal area removed. This prescription meets the Marten Standards and Guidelines. To minimize the possibility of windthrow in areas with windthrow potential, the patches will be designed with irregular boundaries. Some groups of trees may be retained for the length of the rotation. Additional entries may occur.

50-66 percent retention

- One-third to one-half of the area within the unit would be harvested in patches up to two acres or less in size. The selection of these patches will also be based on the basal area of the stand, resulting in the same percentage of basal area removed. This prescription meets the Marten Standards and Guidelines. To minimize the possibility of windthrow in areas with windthrow potential, the patches will be

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designed with irregular boundaries. Other entries may occur. Some groups of trees may be retained for the length of the rotation.

-or-

- One-third to one-half of the area within the unit would be harvested in patches up to three acres in size to meet Visual Quality Objectives. The selection of these patches will also be based on the basal area of the stand, resulting in the same percentage of basal area removed. To minimize the possibility of windthrow in areas with windthrow potential, the patches will be designed with irregular boundaries. Additional entries may occur. Some groups of trees may be retained for the length of the rotation.

An uneven-aged silvicultural system with a regeneration method of single tree selection is described in the unit cards as a harvest method where 50 – 66 percent or 75 percent of the stand is retained. Scattered trees and/or clumps of trees are to be removed.

Removal of trees distributed across the stand

This will regenerate and maintain a multi-aged structure by removing some trees in various size classes distributed across the stand. The trees to be harvested would be selected using a criterion such as species, diameter limits or spacing. A range of diameters, or everything above or below a certain diameter limit may define the trees selected for harvest. Different diameters may be used for different species. The diameter limits may need to be based on statistically accurate cruise data determined at the time of implementation to ensure that the percent of retention will be met. Other units may have each tree marked on the ground according to the management objectives. The resulting stand may have small openings and/or individual trees harvested throughout the stand. Sometimes other trees may be harvested to create safe working conditions or for logging operability. The stand after harvest will retain old-growth characteristics but may fall within a lower volume strata.

Removing trees throughout the stand would retain a continuous large tree canopy following harvest and still manage the stand for timber production. The residual stand would have structural diversity that would provide wildlife habitat and maintain scenic quality. This will maintain or create a stand of three or more distinct size classes distributed throughout the stand. At the end of the rotation, the result will be an uneven-aged stand.

All three logging systems can be used for this system. Where cable-yarding systems are used, it would be restricted to uphill yarding and

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some short (less than 300 ft. slope distance from yarder) downhill yarding. Cable corridor widths will be minimized and lateral yarding will be used to access the individual selected trees. Shovel yarding is effective but some trees other than the selected ones may need to be removed for operability. Helicopter is the most flexible yarding system, but it is sometimes difficult to lift selected trees without removing other trees.

75 percent retention

Twenty-five percent of the trees would be harvested within the unit. There may be additional entries. Some trees may be retained for the length of the rotation. Marten Standards and Guidelines would be used to select some of the trees retained in areas of high value marten habitat. This would mean leaving large trees that would be good for marten habitat – see the guidelines under mitigation measures for marten. Trees displaying windfirm characteristics would be retained.

50 to 66 percent retention

One-third to one-half of the trees would be removed. There may be additional entries. Some trees may be retained for the length of the rotation. Marten Standards and Guidelines would be used to select some of the trees retained in areas of high value marten habitat. This would mean leaving large trees that would be good for marten habitat – see the guidelines under mitigation measures for marten. Trees displaying windfirm characteristics would be retained.

Two-aged Management

A two-aged silvicultural system with a regeneration method of clearcut with reserves is described in the unit cards as a harvest method where 20-30 percent of the stand is retained as scattered trees or in clumps of trees.

Retention of 20-30 percent reserve trees

Some of the trees would be reserved as legacy trees through the 200-year rotation. These reserve trees may be dispersed throughout the stand or in clumps and can be merchantable or unmerchantable. Reserve trees may be of any size and should be relatively windfirm. In stands where there is possible windthrow, reserve trees may be positioned to provide a windfirm buffer to adjacent stands and riparian areas. The residual stand would have a two-layered canopy structure with two or more age classes of trees. In areas of high value marten habitat, the Marten Standards and Guidelines for tree size and numbers of trees would be followed to determine the trees to be left. This would include at least seven large standing trees and smaller trees for stand structure to retain 20-30 percent of the basal area.

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The large trees that remain will provide wildlife habitat for old-growth associated species, such as cavity nesters and roosts for foraging raptors. These trees will also provide stand structure that will lessen the effect for scenery concerns. This will maintain or create a stand of two or more distinct size classes. At the end of the rotation, the result will be a mature stand with some older trees.

All three logging systems would be used for this system. Where cable-yarding systems are used, the trees would be left in clumps along splitlines rather than scattered for downhill yarding. Uphill cable yarding can leave some scattered trees along with clumps. Shovel yarding and helicopter yarding both can leave scattered residual trees but some clumps may be left.

Even-aged Management

An even-aged silvicultural system with a regeneration method of clearcut is described in the unit cards as a harvest method where all merchantable trees are removed and unmerchantable trees are scattered or in clumps where safe to do so.

0 percent retention of merchantable trees

All merchantable trees will be harvested. The objective is to create a fast growing stand of trees to maximize wood-fiber production. Some unmerchantable trees may be left if disease-free to create future stand diversity, if the larger trees can be removed safely. The stand would regenerate into a mostly single-age stand.

Logging/Transportation Systems

This section lists the logging system and whether a classified road needed for long-term management or temporary road construction is needed for access to the unit. More information on the roads is located on the Road Cards that follow the unit cards.

Resource Concerns and Mitigations

Some resource concerns are mitigated by using silvicultural prescriptions other than clearcutting. In the Woodpecker Project Area, most of the wildlife, scenery, and windthrow concerns are mitigated with the silvicultural system. Other resource concerns, such as watershed, soils, and fisheries concerns are mitigated by unit design.

Marten

The following Forest-wide Standards and Guidelines for the American Marten (Forest Plan, pages 4-118 and 4-119) were applied to harvest units in high value marten habitat in the Woodpecker Project Area:

- Retain approximately 10-20 percent of the original stand structure.
- Retain an average of at least four large trees per acre (20-30" DBH or greater) for future snag recruitment. Where not available substitute the next largest trees.
- Retain an average of at least three large decadent (dead or dying) trees per acres (20-30" DBH or greater). Where not available substitute the next largest decadent trees.
- Retain an average of at least three pieces per acre of down material (logs 20-30" or greater in diameter at the large end and 10' long), generally distributed throughout the harvest unit.
- Retained trees should have a reasonable assurance of windfirmness.
- Consider adding smaller or younger trees for future structure recruitment and to improve windfirmness.

Implementation of these guidelines helps meet the objective to manage high value marten habitat to retain features of forest stand structure important to marten habitat use. Additional habitat is provided by an old-growth habitat reserve system, which has been adopted and implemented in accordance with Forest Plan direction. Habitat is also retained in beach, estuary and riparian buffers.

Loss of Old-Growth Habitat

Loss of old-growth habitat is a wildlife concern for most of the proposed harvest units. The use of uneven-aged management mitigates this concern for many units. Another method of mitigating the loss of old-growth habitat is to leave reserve trees of all ages and sizes, with an emphasis on snags and dying trees. The retention of these reserve trees is part of two-aged management. In clearcuts, where feasible for safety concerns, unmerchantable trees may be left.

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Sitka Black-Tailed Deer

Several harvest treatments maintain habitat value to deer through time. Removal of trees in patches will create a mosaic of old-growth forest with regeneration in the openings. If 25 percent of a unit were harvested by removal of patches of trees, the harvested 25 percent will have deer winter habitat values similar to a clearcut, and the other 75 percent of the unit will have old-growth values. When 25 percent of the trees dispersed throughout the stand are removed, the volume of the stand will be lower, but the stand will retain some old-growth characteristics.

Raptor and Great Blue Heron Nests

Habitat buffers will be established around all known or subsequently discovered raptor and great blue heron nests, in accordance with Forest Plan standards and guidelines. Timing restrictions will be placed on activities around the nests during active nesting and fledging periods to minimize disturbance to the birds using the nests. Standards used to protect nest sites vary depending on the type of nest located.

Waterfowl Nesting and Brood-Rearing

Wetlands that are known or likely to be used by waterfowl for nesting, brooding, and rearing have been identified. Buffers of 330-foot width have been placed around these wetlands, according to Forest Plan standards and guidelines. Timing clauses have been placed on these buffers and on adjacent units to restrict logging and roading activities, generally during the period April 1 to July 31, if waterfowl activity is present.

Windfirmness

Windthrow concerns were mitigated through selection of windfirm trees for retention, unit design and silvicultural prescriptions.

Where possible, trees remaining in harvested units will display windfirm characteristics. This will occur under uneven-aged management where individual trees are to be removed and under two-aged management where individual trees or small clumps will be left dispersed throughout the unit. Some of the characteristics of windfirm trees include:

- Open-grown trees, which have been exposed to storm winds throughout their life
- Dominant trees with crowns well above the average stand height
- Short trees with a low form class and high stem taper
- Straight trees, with well-formed stems and no lean
- No stem or root decay and no stem swelling
- Western redcedar, Alaska yellow-cedar, and immature alder species (Harris, 1989)

In two-aged managed units where a windthrow potential occurs, windfirm buffers may be designed to mitigate the effects on adjacent stands. A windfirm buffer would generally be about 100' wide along an

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irregular unit boundary and consist of approximately 25 dispersed small diameter trees per acre (usually under 18" DBH).

In many units uneven-aged management prescriptions mitigate windthrow concerns by harvesting small patches of trees (2-3 acres). These patches will be irregularly shaped and target trees infected with dwarf mistletoe. Patches with windfirm characteristics will be a high priority to retain in these units.

Water Quality and Fisheries

All known streams are shown on the unit card maps in relation to the location of existing roads and approximate location of proposed roads. These streams, and any additional streams, if found, will be protected by following the Forest Plan Riparian Standards and Guidelines listed below. Class IV streams will be protected following Best Management Practices (Forest Plan, Appendix C). Timing restrictions for in-stream work are located on the road cards.

Units were designed so that all Class I and Class II streams and their associated no-programmed-timber harvest buffers are outside of the unit boundaries.

Riparian Management Areas

Riparian Forest-wide Standards and Guidelines are a combination of no harvest buffers and windfirm buffers along streams and yarding guidelines to protect soil from erosion based on stream classes and channel types. For full descriptions of the standards and guidelines, see the Forest Plan, (pages 4-53 to 4-73).

Riparian Standards and Guidelines for Timber Harvest

The Tongass Timber Reform Act (TTRA) mandates the use of minimum 100-foot wide buffer strips along both sides of all Class I and Class II streams that flow into Class I streams. This was incorporated into the Forest Plan Riparian Standards and Guidelines as "No commercial harvest within 100' of Class I streams and Class II streams that flow directly into Class I streams."

The minimum 100-foot wide buffer strips mandated by TTRA are expanded for some channel types to include an additional buffer where no programmed commercial timber harvest can occur. The need for this no-harvest buffer is determined for streams using the AHMU Class and the process group. The width is based either on the height of a site-potential tree, the presence of riparian vegetation or soils, flood plains or fens. The height of a site potential tree is determined by the productivity of the site and ranges from 110 to 140 feet.

Introduction to Unit Cards

Windfirm buffers

Windthrow events are the dominant agent for disturbance within the Woodpecker Project area. The affects of these events on the landscape vary depending on the position of the windthrow in the landscape, the magnitude of its occurrence, and its proximity to streamside riparian buffers. Small-scale windthrow in combination with bank undercutting plays an integral part in maintaining healthy fish habitat. These natural events supply the stream with the large woody debris needed for pool formation, hiding cover, sediment retention, and energy dissipation.

When large woody debris is parceled to streams over long periods of time, the tools streams need for habitat maintenance are available. However, when streamside windthrow occurs on larger scales, loss of wildlife corridors, increased sedimentation, channel scour, and debris jam formation are often the results. More importantly, the mechanism that allows the recruitment of large woody debris to a stream over time for the maintenance of fish habitat will be compromised. To mitigate these effects the Forest Plan has set standards and guidelines for the establishment of windfirm buffers.

An appropriate distance will be managed beyond the no-harvest zone, for all buffers within and adjacent to proposed units. This will provide for a reasonable assurance of windfirmness of the Riparian Management Area buffer, paying special attention to the area within one site-potential tree height of the Riparian Management Area. Other management techniques may reduce the occurrence of windthrow to the riparian buffer. The use of partial harvest retention in or around streamside buffers is applied in all units. The partial harvest units that retain 20 to 75 percent of basal area are expected to dissipate wind energy before it reaches riparian buffers.

Logging System Controls

Log yarding practices are based on channel type and stream class. Some yarding guidelines include: partial or full suspension of logs, minimizing the exposure of mineral soil, and split-line yarding on either side of the stream. The objective is to minimize alder growth and formation of new channels (BMP 13.9).

Best Management Practices

The following Best Management Practices (BMPs) are applied to streams in the Woodpecker Project Area, as specified in the Forest Plan (pages C-1 to C-3). The BMPs are cited on the Unit Cards where appropriate. Not all BMPs apply to every stream.

Introduction to Unit Cards

BMP 12.6 (Riparian Area Designation and Protection) - To identify riparian areas and their associated management activities.

BMP 12.6a (Buffer Design and Layout) - To design streamside buffers to meet objectives defined during the implementation of BMP 12.6.

BMP 13.16 (Stream Channel Protection - Implementation and Enforcement) - To provide site-specific stream protection prescriptions consistent with objectives identified under BMPs 12.6 and 12.6a. Objectives may include the following:

- maintain the natural flow regime,
- provide for unobstructed passage of stormflows,
- maintain integrity of the riparian buffer to filter sediment and other pollutants,
- restore the natural course of any stream that has been diverted as soon as practicable,
- maintain natural channel integrity to protect aquatic habitat and other beneficial use, and
- prevent adverse changes to the natural stream temperature regime.

BMP 13.9 (Determining Guidelines for Yarding Operations) - To select appropriate yarding systems and guidelines for protecting soil and water resources.

BMP 14.6 (Timing Restrictions for Construction Activities) - Minimize erosion potential by restricting the operating schedule and conducting operations during lower risk periods.

Process Groups and Channel Types (Forest Plan, page D-3)

A process group describes streams with similar interrelationships between watershed runoff, landform relief, geology, and glacial or tidal influences on erosion and deposition. A channel type more precisely characterizes a stream and helps predict the probable responses to natural and human influences. Channel types incorporate other aspects such as gradient, pattern, stream bank incision and containment and riparian area vegetation communities. See the Forest Plan, Figure D-1 (page D-4) for a visual representation of the typical distribution of channel process groups. The following table shows the Forest Plan codes used on the unit card narratives. Each unit card summarizes the protection. Only the channel types found in the Woodpecker Project Area are listed.

Table B-1. Channel Types in the Woodpecker Project Area

Process Group	Channel Type Code	Channel Type Description
Alluvial Fan	AF1	Moderate Gradient Alluvial Fan Channel
	AF2	High Gradient Alluvial Cone Channel
Estuarine	ES2	Narrow Small Substrate Estuarine Channel
	ES3	Narrow Large Substrate Estuarine Channel
Flood Plain	FP1	Uplifted Beach Channel
	FP2	Uplifted Estuarine Channel
	FP3	Narrow Low Gradient Flood Plain Channel
	FP4	Low Gradient Flood Plain Channel
High Gradient Contained	HC1	Shallowly Incised Muskeg Channel
	HC2	Shallowly to Moderately Incised Footslope Channel
	HC3	Deeply Incised Upper Valley Channel
	HC4	Deeply Incised Muskeg Channel
	HC5	Shallowly Incised Very High Gradient Channel
	HC6	Deeply Incised Mountain Slope Channel
Large Contained	LC2	Moderate Gradient Contained Channel
Moderate Gradient Contained	MC1	Narrow Shallow Contained Channel
	MC2	Moderate Width and Incision Contained Channel
	MC3	Deeply Incised Contained Channel
Moderate Gradient, Mixed Control	MM1	Narrow Mixed Control Channel
	MM2	Moderate Width Mixed Control Channel
Palustrine	PA1	Narrow Placid Flow Channel
	PA2	Moderate Width Placid Flow Channel
	PA4	Flood Plain Backwater Slough
	PA5	Beaver Dam/Pond Channel

Scenery

The standards and guidelines for the scenery management of an area are determined by the number of viewers, distance from the viewer (Distance Zones), and the ability of the landscape to absorb change (Visual Absorption Capability, or VAC).

Distance Zones

- Foreground (0 - ½ mile)
- Middleground (½ - 3 to 5 miles)
- Background (3 to 5 miles and greater)

Visual Absorption Capability

- Low VAC - Steep slopes and uniform vegetation

Introduction to Unit Cards

- Intermediate VAC – Gentle slopes, some variation in vegetation
- High VAC – Flat muskeg and forest mosaics

Visual Quality Objectives

The following Visual Quality Objectives from the Forest Plan provide standards for management based on the landscape's scenic characteristics and public viewing concern.

Retention: Changes in the landscape must not be visually evident to the casual forest observer.

Partial Retention: Changes in the landscape may be visually evident, but must be integrated into and visually subordinate to the surrounding landscape and should not attract attention.

Modification: Changes in the landscape may visually dominate the surrounding natural landscape, however they should be compatible with the surrounding natural landscape.

Maximum Modification: Management activities may visually dominate the characteristic or surrounding natural landscape.

Scenery Standards and Guidelines by Land Use Designation

The guidelines for scenery differ within the three Land Use Designations (LUDs) that allow timber harvest. The Land Use Designations in the Woodpecker Project Area are shown on Figure B-1.

For areas visible from Visual Priority Travel Routes and Use Areas:

Distance Zone \ LUD	Scenic Viewshed	Modified Landscape	Timber Management
Foreground	Retention	Partial Retention	Modification
Middleground	Partial Retention	Modification	Maximum Modification
Background	Partial Retention	Modification	Maximum Modification

For areas not visible from Visual Priority Travel Routes and Use Areas:

All areas - Maximum Modification VQO

Introduction to Unit Cards

The primary scenic objective for Scenic Viewshed LUD is to retain a natural-appearing landscape over time, if viewed from Visual Priority Travel Routes and Use Areas. For the Modified Landscape LUD, the primary scenic objective is to minimize development in the near viewing area while allowing a sustained yield of timber and mix of other resource activities in other viewing areas over time. The Timber Production LUD focuses on achieving visual characteristics similar to natural occurrences in the near viewing area while allowing a sustained yield of timber.

Visual Quality Objectives for Units in the Scenic Viewshed LUD

Retention/Partial Retention - Units 148a, 150

Partial Retention - Units 34, 67, 73, 75, 77, 78, 78a, 80, 81, 90, 90a, 121, 122, 122a, 125, 35a, 148, 149

Modification - Units 81a, 105, 161a

Units 81 and 90 are in areas of high visual absorption capability (VAC). All other units are in areas of low to intermediate VAC.

Visual Quality Objectives for Units in the Modified Landscape LUD:

Partial Retention - Units 90b, 141

Modification - Units 90c, 90f, 92, 93, 98, 102, 103, 104b, 104c, 109, 110, 117a, 117b, 117c, 117d, 118, 119, 119a, 119b, 123, 166a, 174, 187

Units 90b, 141, 166a, 174, and 187 are in areas of low to intermediate VAC. All other units are in areas of high VAC.

Visual Quality Objectives for Units in the Timber Production LUD:

Modification - Units 82, 85, 85a, 87, 88, 88b, 90d, 90e

All units are in areas of high visual absorption capability (VAC).

Selected Alternative Unit Card Narratives and Maps

Woodpecker Project Area Unit Card Narrative

Unit #:	34	Unit Size :	32 acres
Aerial Photo:	1998 1798- 233	Volume strata:	18 acres high
VCU:	448		14 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	500 mbf

Harvest Treatment: 50-66% retention, remove trees in 2-acre or less corridors

Logging/Transportation Systems: Cable yarding / two temporary roads

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class IV, Channel Type MC1
Stream 2 is Class IV, Channel Type HC5
Stream 3 is Class IV, Channel Type HC1
Stream 4 is Class III/IV, Channel Type AF2
Stream 5 is Class III, Channel Type AF1/HC5

Mitigation: *Streams 1 and 2:* Apply BMP 13.16 (Stream Channel Protection).
Stream 3: Apply BMP 13.16. Recommend leaving reserve trees along stream bank in the east corner of unit.
Streams 4 and 5: No commercial timber harvest within the 140' Riparian Management Area, or within the active portion of the alluvial fan. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16.

Concern: Two temporary roads provide continuous landings within the unit.

Mitigation: Remove all drainage structures from the temporary roads to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Soils

Concern: The southern boundary of the unit is adjacent to an area of steep unstable slopes.

Mitigation: The unit boundary was modified to avoid the steep slopes. Check slope stability during sale layout.

Wildlife

Concern: The unit contains high value marten habitat.

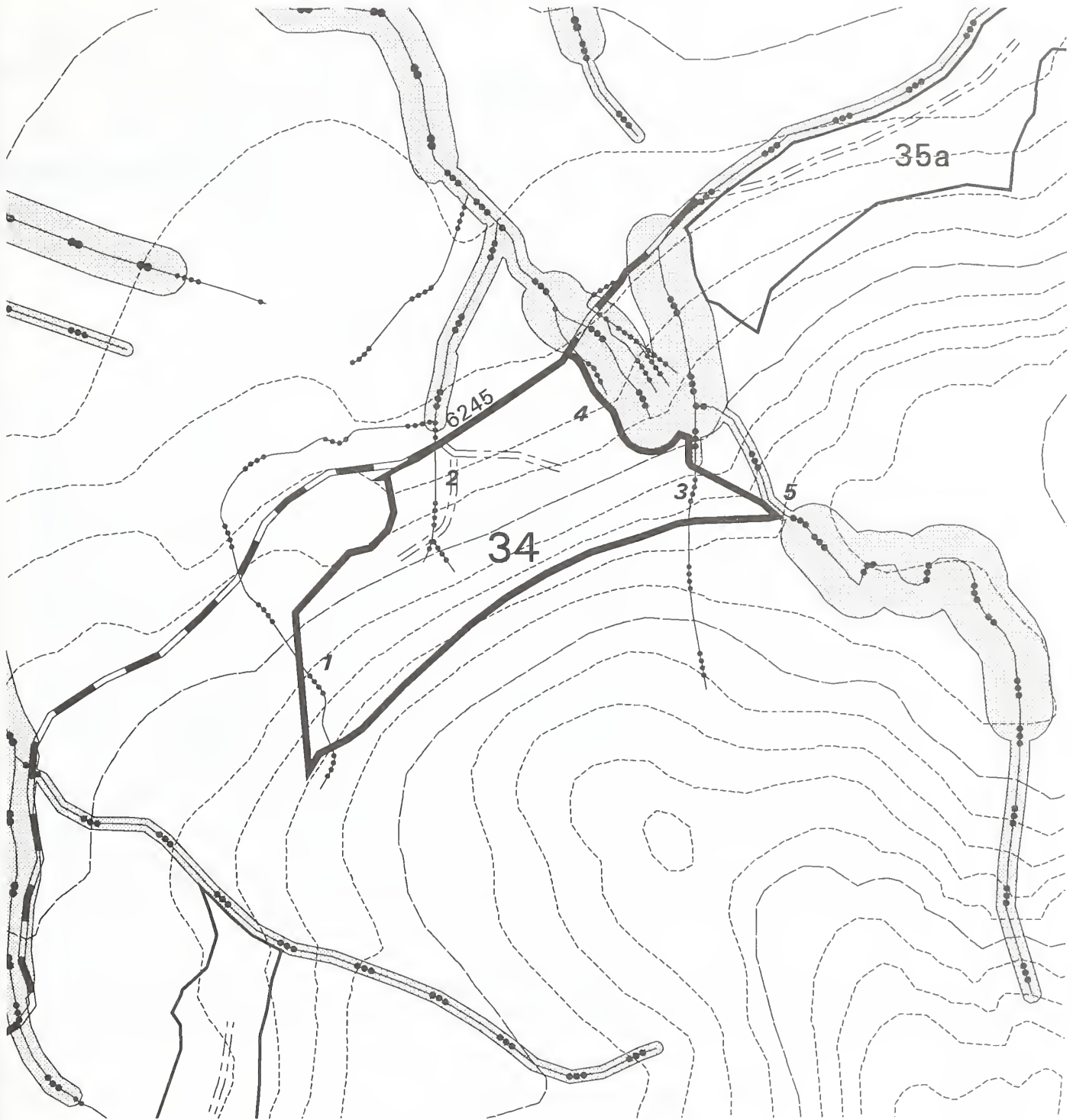
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows and Crystal Mountain.

Mitigation: Retention of at least 50% of the stand and unit size will meet the Partial Retention VQO.

Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	35a	Unit Size :	22	acres
Aerial Photo:	1998 1798-233	Volume strata:	15	acres high
VCU:	448		7	acres medium
Land Use Designation:	Scenic Viewshed, Modified Landscape, Timber Production			
Within Inventoried Roadless Area?	No	Estimated timber volume:	350	mbf

Harvest Treatment: 50-66% retention, remove trees in 2-acre or less corridors

Logging/Transportation Systems: Cable yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC3
Stream 2 is Class II, Channel Type HC3
Stream 3 is Class III, Channel Type HC6
Stream 4 is Class III, Channel Type AF2

Mitigation: *Stream 1:* No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).
Stream 2: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, defined as 100'. Apply BMPs 12.6, 12.6a, and 13.16.
Stream 3: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6, 12.6a, and 13.16.
Stream 4: No commercial timber harvest within the 140' Riparian Management Area, or within the active portion of the alluvial fan. Apply BMPs 12.6, 12.6a, and 13.16.

Concern: A temporary road from Road 6245 provides continuous landings along the lower portion of the unit.

Mitigation: Remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Soils

Concern: The southeastern boundary of the unit is adjacent to an area of steep slopes over 72%.

Mitigation: The unit boundary was modified to avoid the steep slopes. Check slope stability during sale layout.

Wildlife

Concern: The unit contains high value marten habitat.

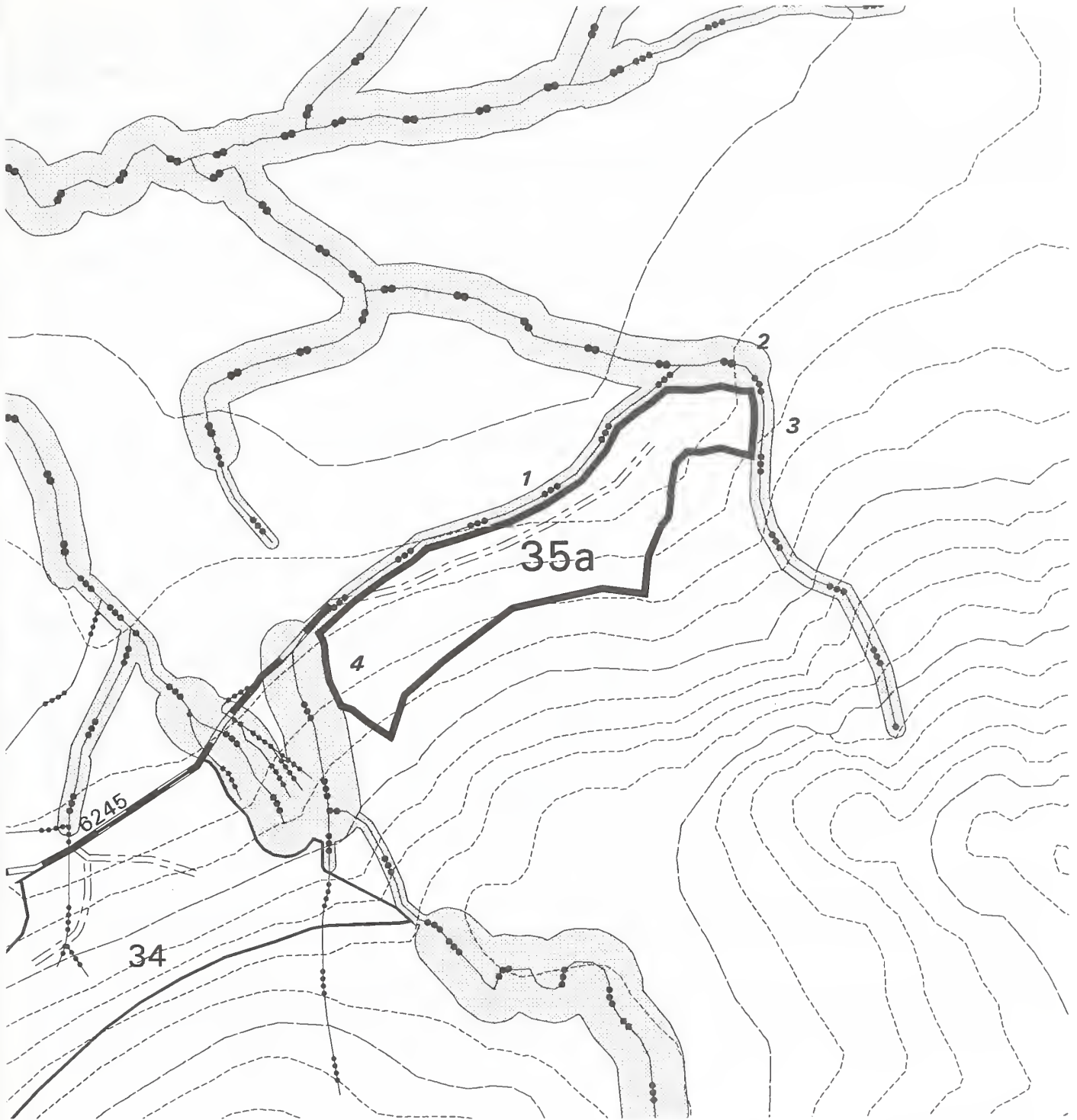
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows and Crystal Mountain.

Mitigation: Retention of at least 50% of the stand and unit size will meet the Partial Retention VQO.

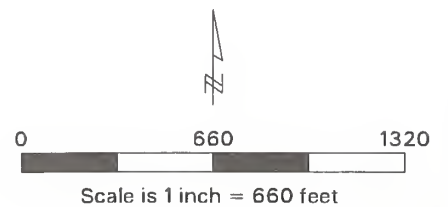
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	67	Unit Size :	19 acres
Aerial Photo:	1998 1798- 234	Volume strata:	7 acres high
VCU:	448		12 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	400 mbf

Harvest Treatment: 20-30% retention, leave trees in clumps east of the road; leave trees either in clumps or scattered to the west of the road

Logging/Transportation Systems: Cable yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class IV, Channel Type HC5

Stream 2 is Class III, Channel Type HC5

Mitigation: *Stream 1:* Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding where feasible.

Stream 2: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16.

Concern: A temporary road from Road 6245 provides continuous landings along the lower portion of the unit.

Mitigation: Remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows and Crystal Mountain.

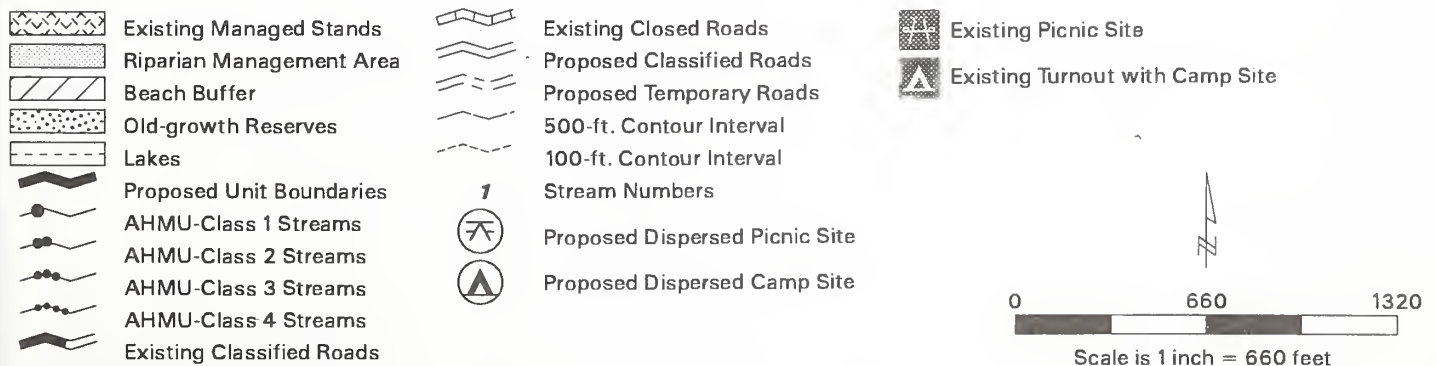
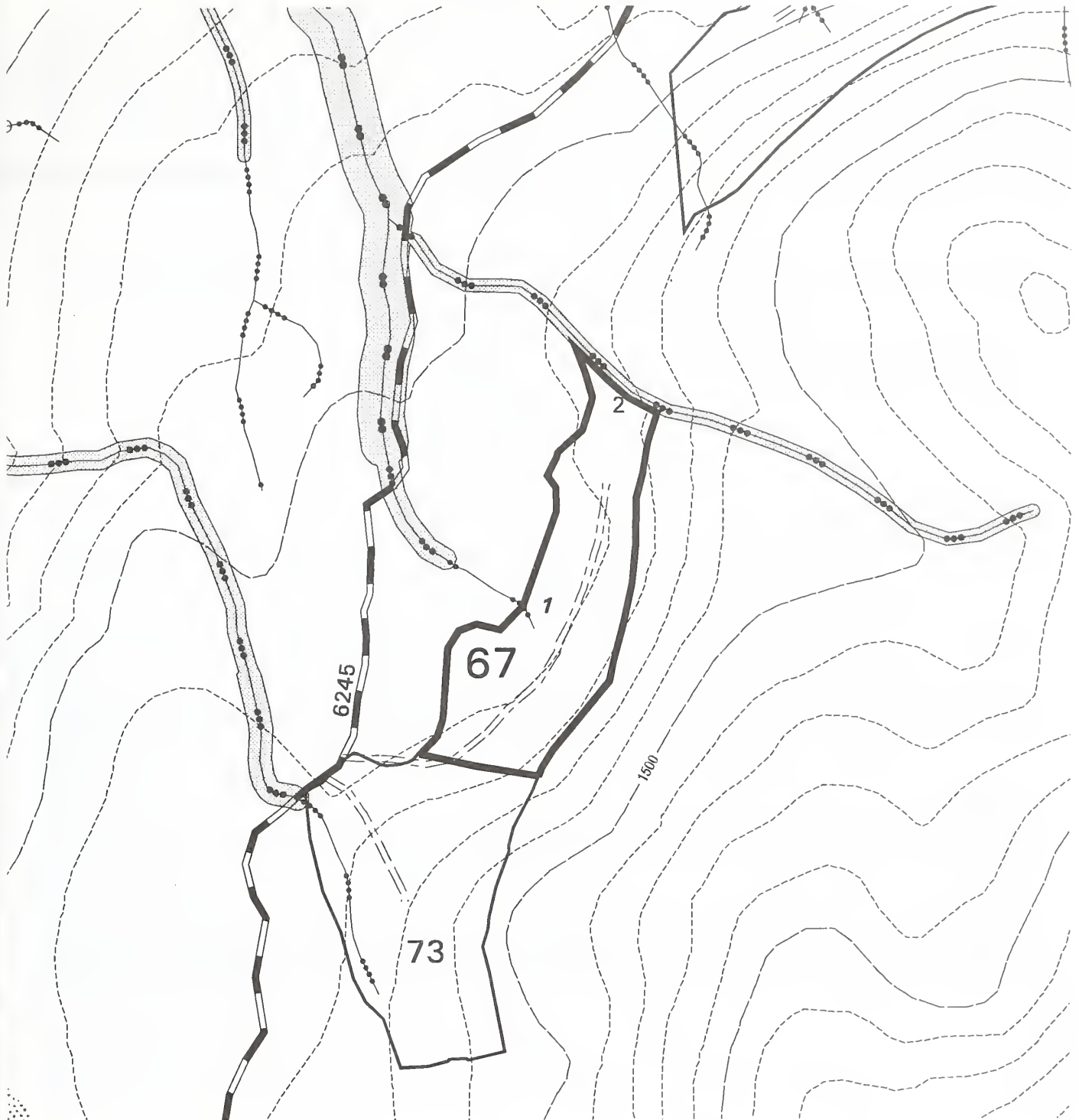
Mitigation: Retention of at least 20% of the stand and the unit size will meet the Partial Retention VQO.

Wetlands

Concern: There are 5 acres of muskeg/forested wetland along the southern boundary.

Mitigation: Design boundary during layout to avoid muskeg areas.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	73	Unit Size :	22 acres	
Aerial Photo:	1998 1798-234	Volume strata:	12	acres high
VCU:	448		10	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	No	Estimated timber volume:	470	mbf

Harvest Treatment: 20-30% retention, leave trees in clumps east of the road; leave trees either in clumps or scattered to the west of the road

Logging/Transportation Systems: Cable yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class IV, Channel Type HC1

Mitigation: Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and splitline yarding and leave reserve trees where feasible.

Concern: A temporary road from Road 6245 provides continuous landings along the lower portion of the unit.

Mitigation: Remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

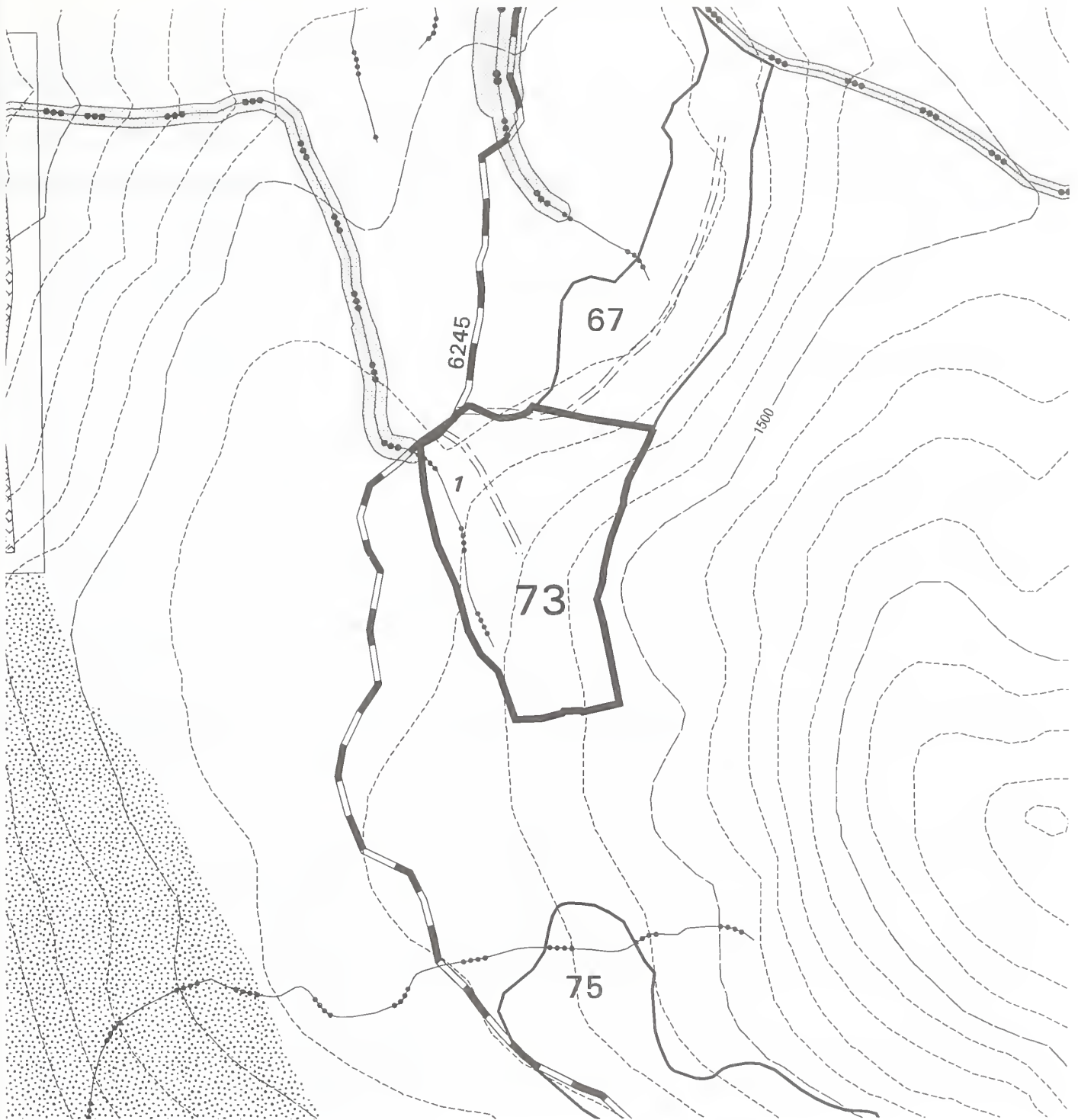
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows and Crystal Mountain.

Mitigation: Retention of at least 20% of the stand and the unit size will meet the Partial Retention VQO.

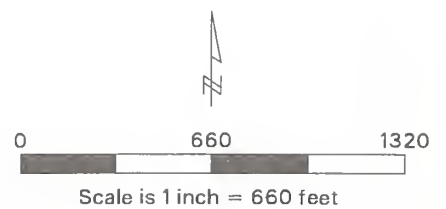
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	75	Unit Size :	22 acres	
Aerial Photo:	1998 1798-235	Volume strata:	0	acres high
VCU:	448		22	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	No	Estimated timber volume:	180	mbf

Harvest Treatment: 50-66% retention, remove trees in 3-acre or less corridors, leave some clumps along Road 6245 where feasible

Logging/Transportation Systems: Cable yarding / one temporary road and existing road 6245

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class IV, Channel Type HC5

Streams 2, 3, and 4 are Class IV, Channel Type HC2

Mitigation: Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding and leave reserve trees where feasible.

Concern: A temporary road in the southern half of the unit and Road 6245 provide landings for this unit.

Mitigation: Remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Soils

Concern: Unstable slopes occur northeast of the unit.

Mitigation: The unit was modified to exclude the area of unstable slopes.

Scenery

Concern: A portion of the unit may be visible from the Wrangell Narrows.

Mitigation: Retention of 75% of the stand and the unit size will meet the Partial Retention VQO.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

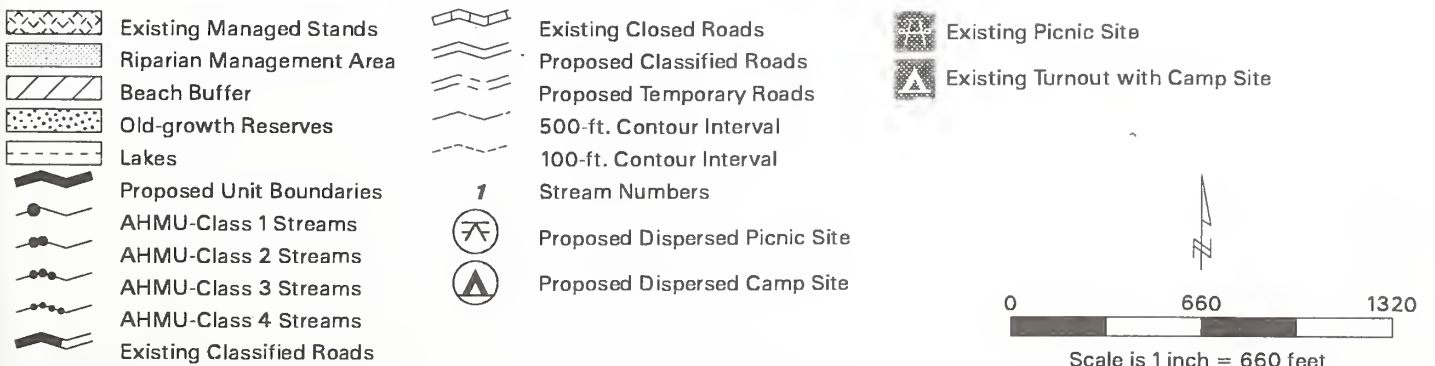
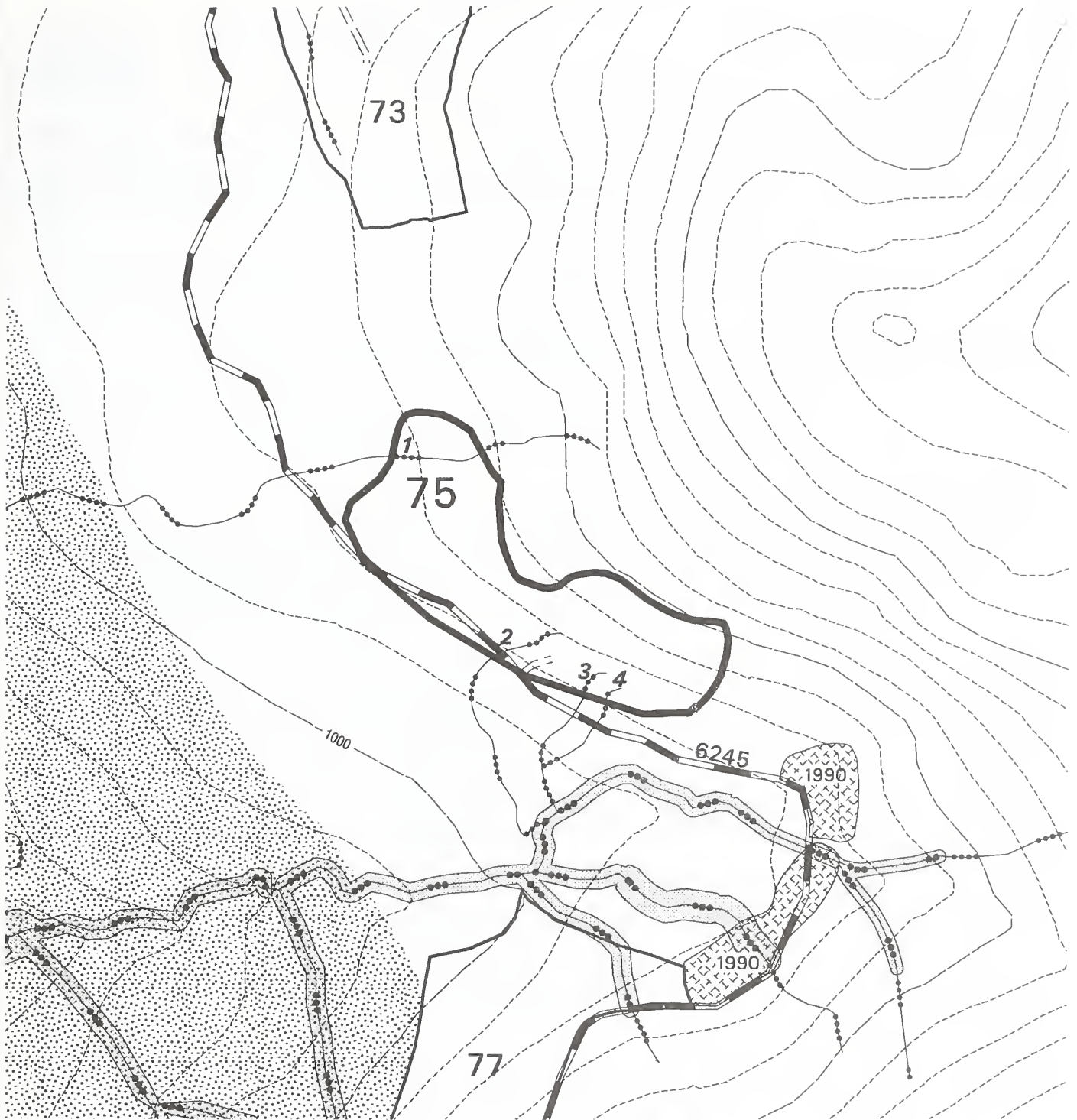
Mitigation: Trees displaying windfirm characteristics will be favored for retention and corridor width will be minimized.

Wetlands

Concern: There are 5 acres of muskeg/forested wetland along the southern boundary.

Mitigation: Design boundary during layout to avoid muskeg areas.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	77	Unit Size :	23 acres
Aerial Photo:	1998 1798-236	Volume strata:	19 acres high
VCU:	448		4 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	170 mbf

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit or in corridors

Logging/Transportation Systems: Cable yarding / existing Road 6245

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Streams 1 and 2 are Class III and Channel Type HC6

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch or side-slope break. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Soils

Concern: The southern unit boundary is adjacent to steep slopes > 72%.

Mitigation: Check slope stability during layout and modify boundary to avoid any unstable slopes.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Concern: Red-tailed hawk nest north of the unit.

Mitigation: A 600-foot no-harvest buffer will be maintained around the nest.

Concern: The unit is adjacent to the Wrangell Narrows Old-growth Reserve.

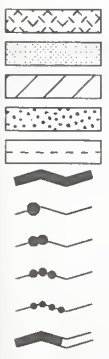
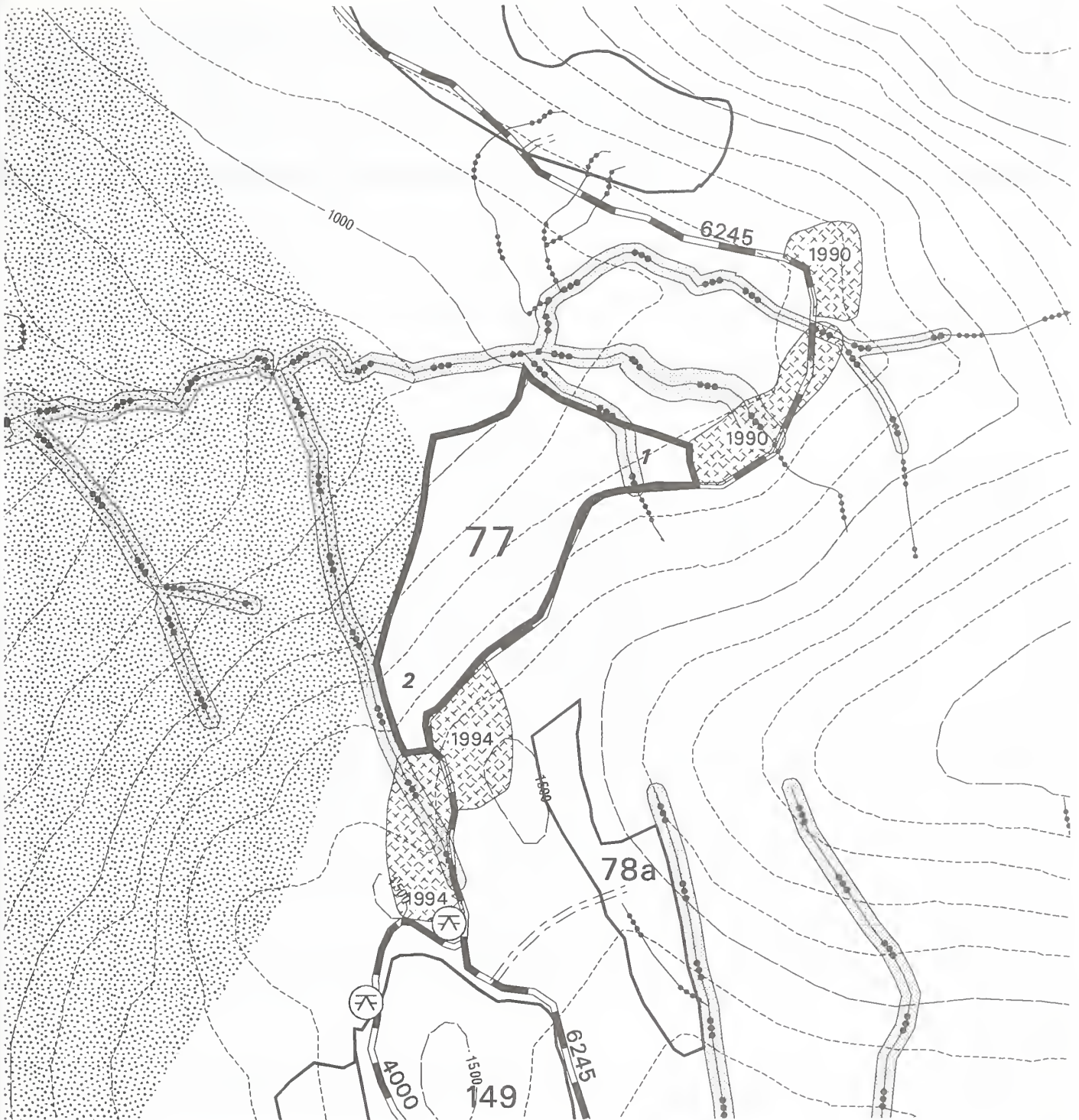
Mitigation: The unit boundary was modified to avoid the Old-growth Reserve.

Scenery

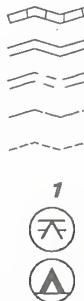
Concern: A portion of the unit may be visible from the Wrangell Narrows.

Mitigation: Retention of at least 50 % of the stand and the unit size will meet the Partial Retention VQO.

Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads



- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site



- Existing Picnic Site
- Existing Turnout with Camp Site



Scale is 1 inch = 660 feet

Woodpecker Project Area Unit Card Narrative

Unit #: 78a

Aerial Photo: 1998 1798-237

VCU: 452

Land Use Designation: Scenic Viewshed

Within Inventoried Roadless Area? No

Unit Size : 9 acres

Volume strata: 9 acres high
0 acres medium

Estimated timber volume: 190 mbf

Harvest Treatment: 20-30% retention, leave trees in clumps

Logging/Transportation Systems: Cable yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class IV, Channel Type HC6

Stream 2 is Class III, Channel Type HC6

Mitigation: *Stream 1:* Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding where feasible.

Stream 2: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16.

Concern: A temporary road provides access to the middle of the unit.

Mitigation: Remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows.

Mitigation: Retention of at least 20% of the stand and the unit size will meet the Partial Retention VQO.

Wetlands

Concern: Entire unit is classed as muskeg/forested wetland or forested upland/wetland mosaic.

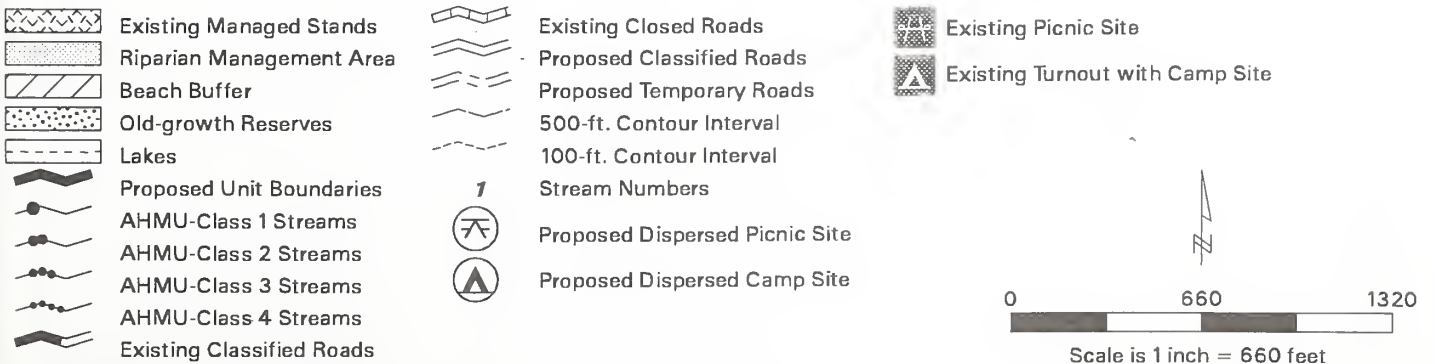
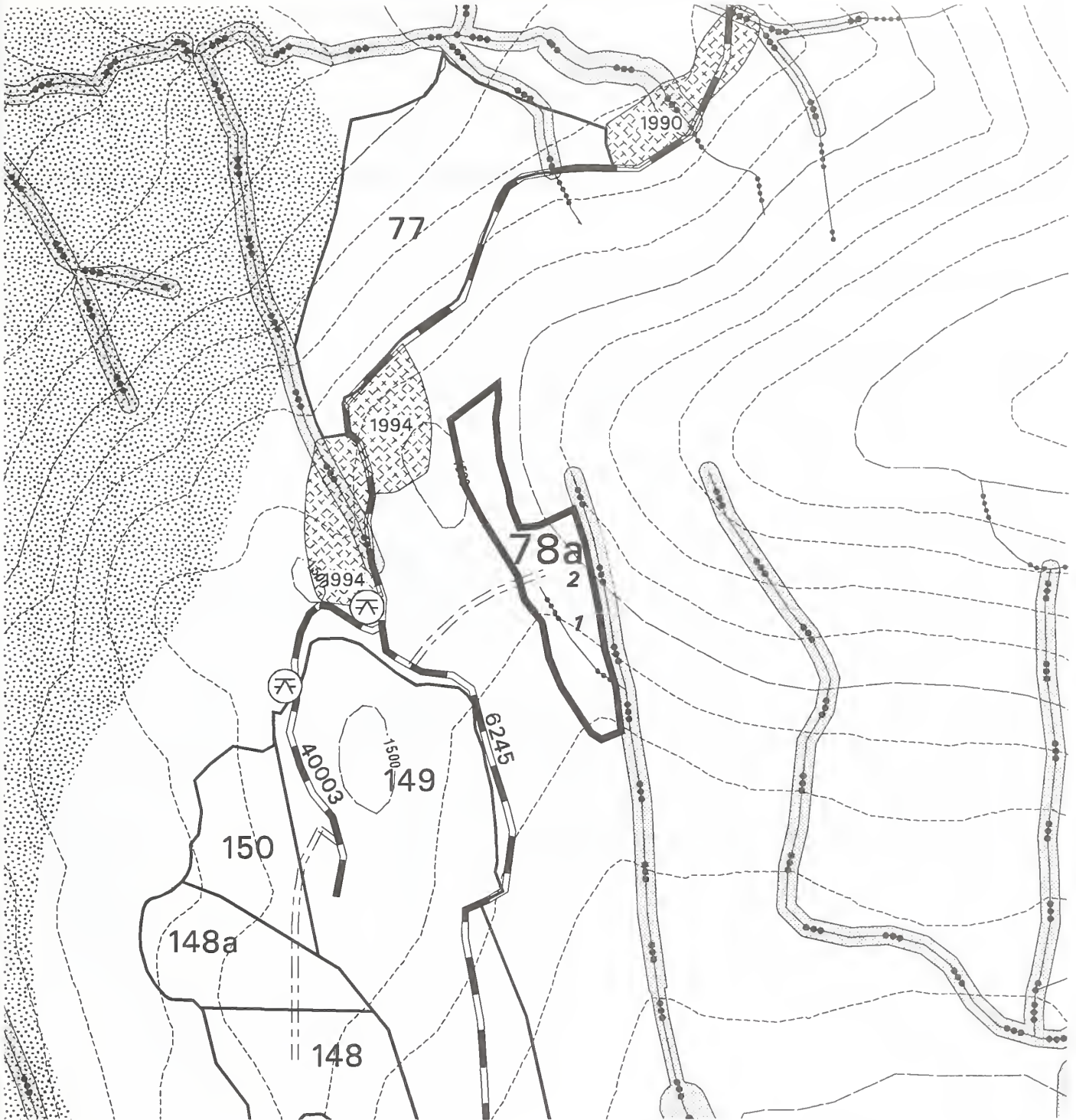
Mitigation: Avoid areas of muskeg, where practicable. Achieve suspension to minimize damage.

Recreation

Concern: This unit would be visible from the proposed picnic site at the junction of Roads 6245 and 40003.

Mitigation: The high amount of tree retention will lessen the visual impacts.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	88	Unit Size :	45 acres	
Aerial Photo:	1999 2398-88	Volume strata:	45	acres high
VCU:	452		0	acres medium
Land Use Designation:	Timber Production			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	470	mbf

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Helicopter yarding. Use landings on the proposed temporary road in unit 88b.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Streams 1, 2, 3, and 4 are Class III and Channel Type HC5.

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Soils

Concern: The north central unit boundary is adjacent to steep slopes > 72%.

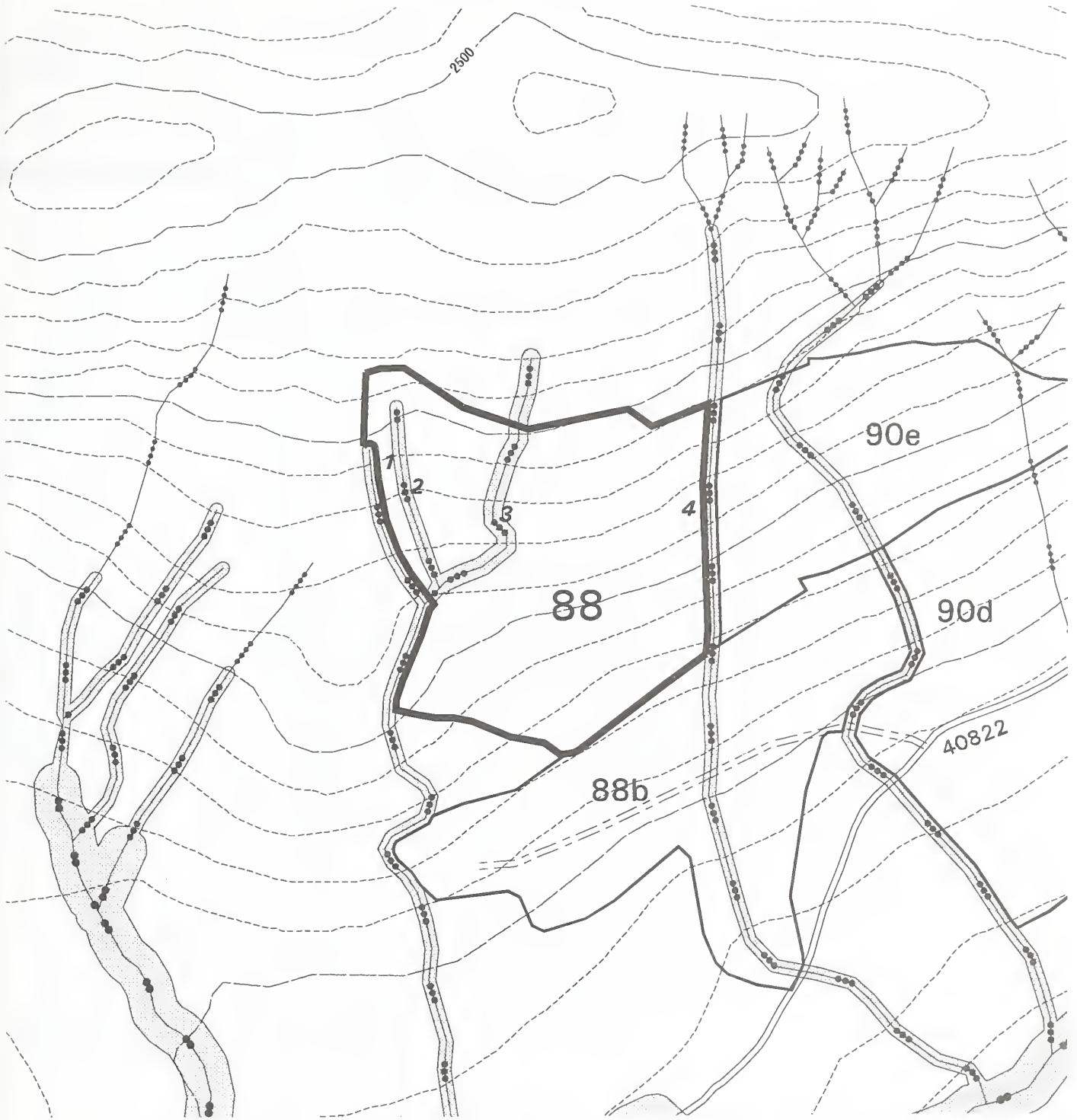
Mitigation: Check slope stability during layout and modify boundary to avoid any unstable slopes.












Transportation









Concern: The unit is not accessible by road due to steep slopes.



Mitigation: Use helicopter logging to access the unit.

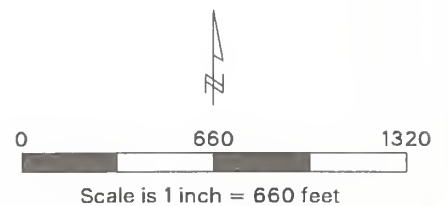
Selected Alternative



-  Existing Managed Stands
-  Riparian Management Area
-  Beach Buffer
-  Old-growth Reserves
-  Lakes
-  Proposed Unit Boundaries
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  AHMU-Class 4 Streams
-  Existing Classified Roads

-  Existing Closed Roads
-  Proposed Classified Roads
-  Proposed Temporary Roads
-  500-ft. Contour Interval
-  100-ft. Contour Interval
-  Stream Numbers
-  Proposed Dispersed Picnic Site
-  Proposed Dispersed Camp Site

-  Existing Picnic Site
-  Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	88b	Unit Size :	42 acres	
Aerial Photo:	1999 2398-88	Volume strata:	42	acres high
VCU:	452		0	acres medium
Land Use Designation:	Timber Production			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	450	mbf

Harvest Treatment: 50-66% retention, remove trees in 2-acre or less corridors north of the road, remove trees either in clumps or dispersed south of the road

Logging/Transportation Systems: Cable yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC1

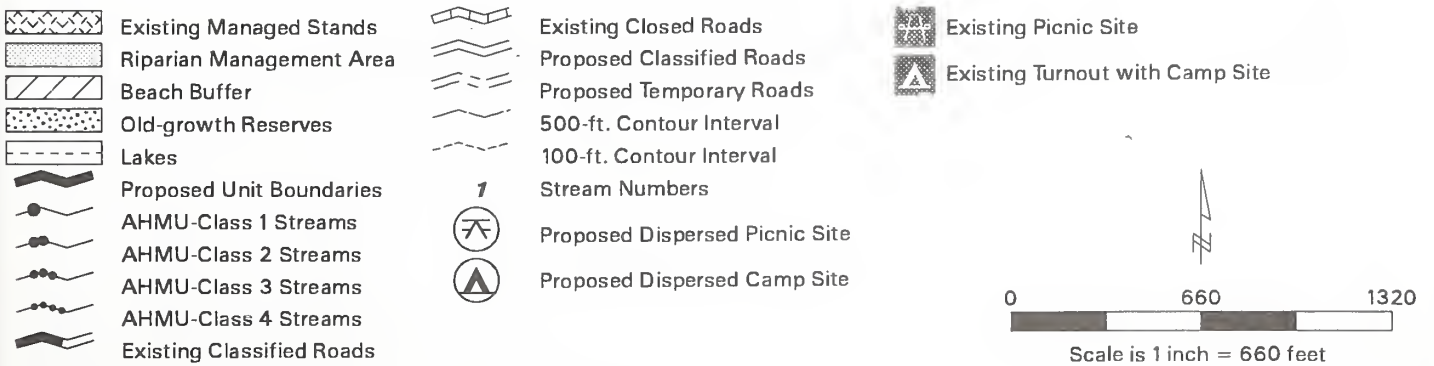
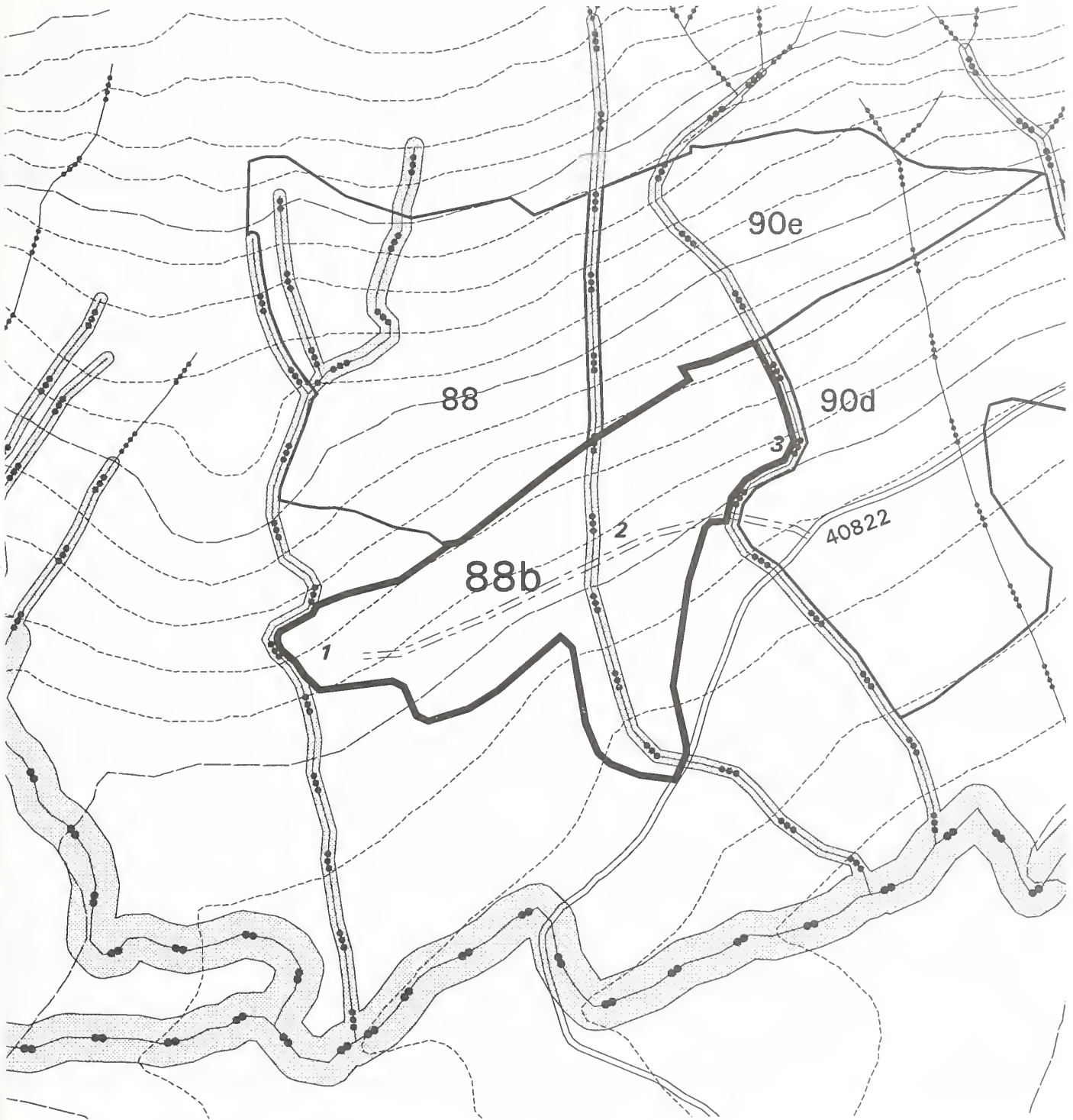
Streams 2 and 3 are Class III, Channel Type HC5

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: A temporary road provides access through the middle of the unit. Road 40822 will remain open to the junction with this road.

Mitigation: Remove all drainage structures from the temporary road after harvest to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	90	Unit Size :	57	acres
Aerial Photo:	1999 2398-100	Volume strata:	35	acres high
VCU:	452		22	acres medium
Land Use Designation:	Scenic Viewshed, Modified Landscape			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	460	mbf

Harvest Treatment: 75% retention, remove trees in 2-acre or less openings

Logging/Transportation Systems: Cable yarding / two temporary roads, Road 40822

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC5

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: Road 40822 runs through this unit. Two temporary roads also access the unit.

Mitigation: After harvest, put Road 40822 into "storage" from the junction of the temporary road into unit 88b to the last landing in this unit. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Concern: Waterfowl nesting may occur near the beaver pond on the southeast edge of the unit.

Mitigation: Timber harvest and other ground disturbing activities will not occur within 330 feet of the pond area from April 1 to July 31 if nesting waterfowl are present.

Concern: The unit contains high value deer winter habitat.

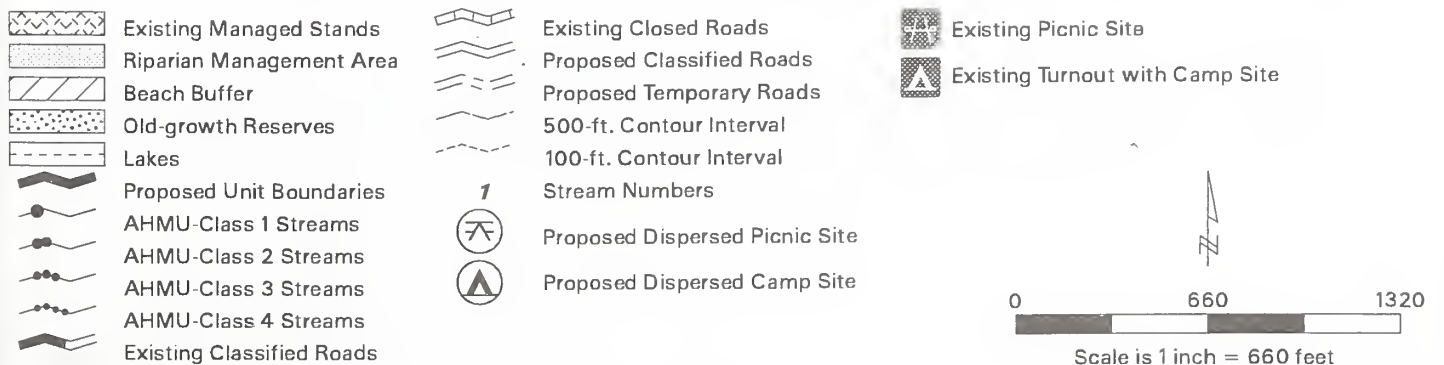
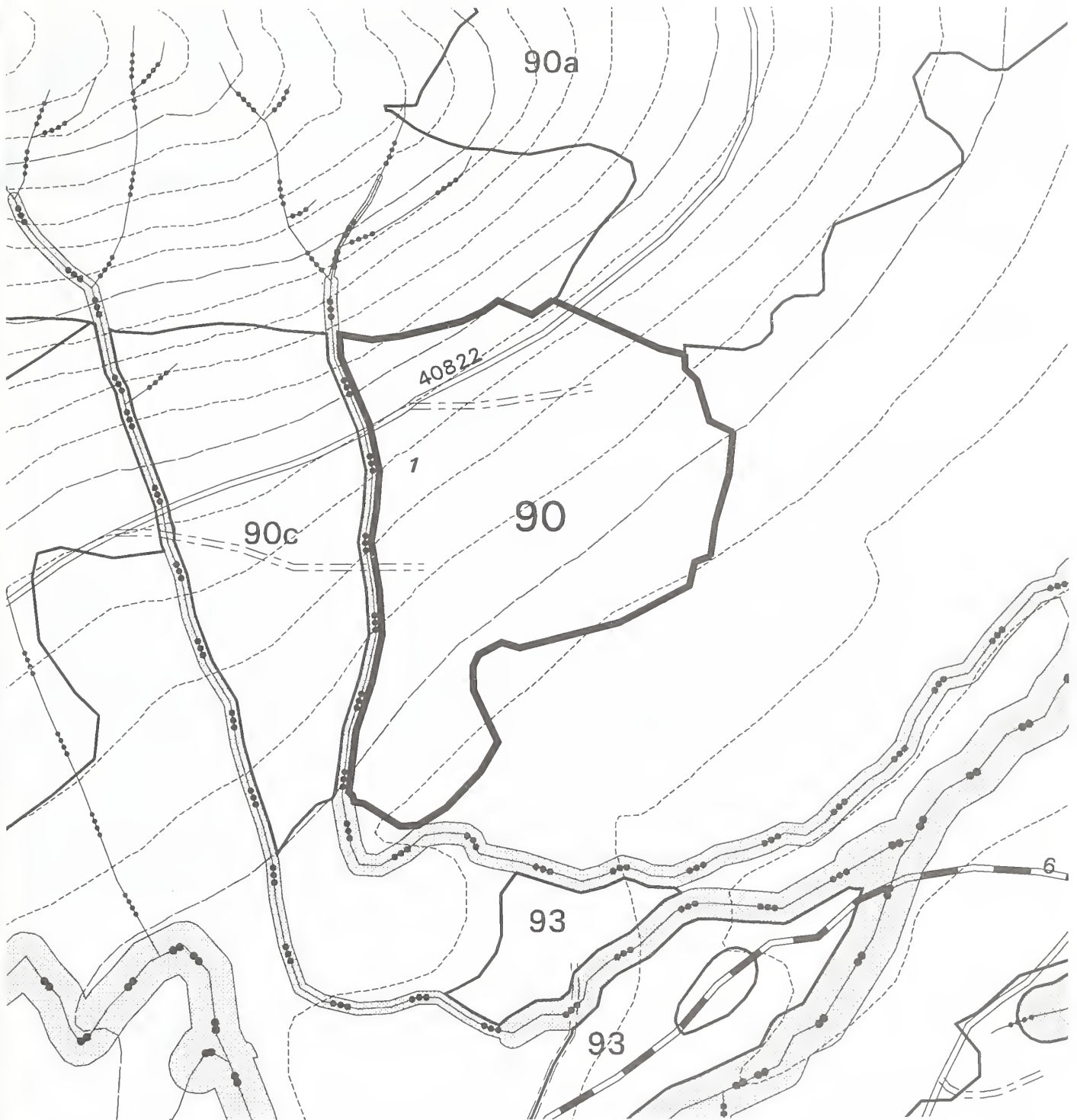
Mitigation: Retention of 75% of the stand will maintain winter habitat of a slightly lower quality. The stand will recover to full value in 40 years.

Scenery

Concern: The northern part of the unit is seen from South Blind Slough.

Mitigation: Retention of 75% of the stand will meet the Partial Retention VQO.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	90a	Unit Size :	103	acres
Aerial Photo:	1999 2398-101	Volume strata:	38	acres high
VCU:	452		63	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	980	mbf

Harvest Treatment: 75% retention, remove trees in 2-acre or less corridors

Logging/Transportation Systems: Cable yarding / Road 40822

Resource Concerns & Mitigations

Watershed/Fisheries

- Concern:** Stream 1 is Class IV, Channel Type HC0
Stream 2 is Class IV, Channel Type HC1
Stream 3 is Class III, Channel Type HC5 flowing from a Class IV, Channel Type HC5
Stream 4 is Class III, Channel Type HC0/HC5
- Mitigation:** *Streams 1 and 2:* Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding where feasible.
Streams 3 and 4: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16. Where possible, leave reserve trees between the two streams at the northeast end of the unit.
- Concern:** Road 40822 runs through this unit.
- Mitigation:** After harvest, put Road 40822 into "storage" from the junction of the temporary road into unit 88b to the last landing in this unit. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Soils

- Concern:** The southwestern unit boundary is adjacent to steep slopes > 72%.
- Mitigation:** Check slope stability during layout and modify boundary to avoid any unstable slopes.

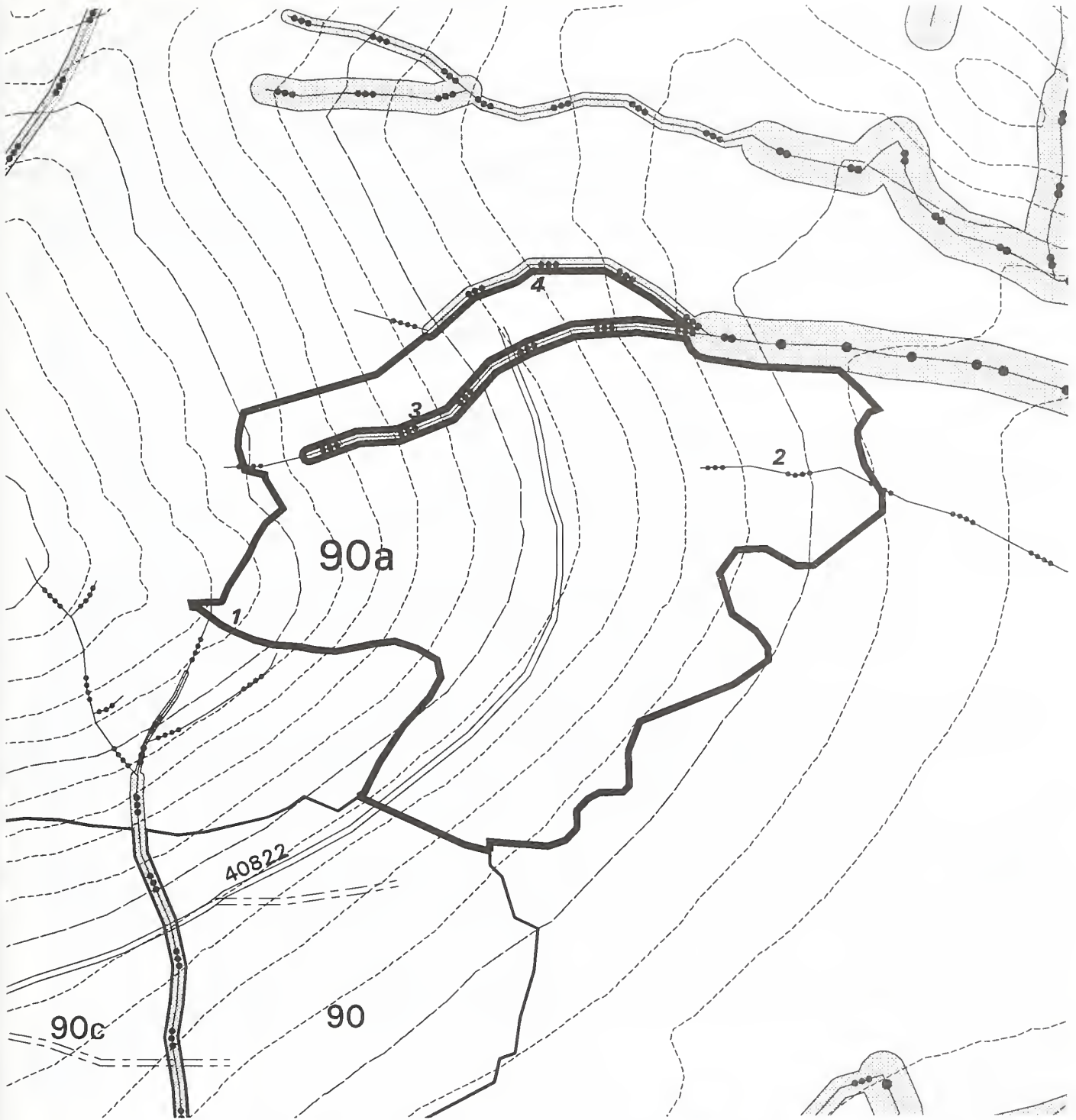
Wildlife




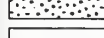







- Concern:** The unit contains high value marten habitat.
- Mitigation:** The harvest treatment meets marten standards and guidelines throughout the unit.









Scenery



- Concern:** Most of the unit is seen from South Blind Slough.
- Mitigation:** Retention of 75% of the stand and screening from the small island in South Blind Slough will meet the Partial Retention VQO. Place corridors to avoid long openings.

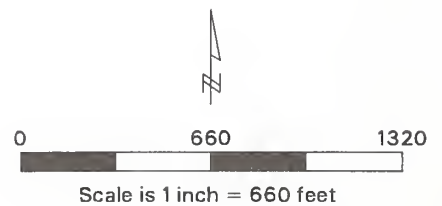
Selected Alternative



-  Existing Managed Stands
-  Riparian Management Area
-  Beach Buffer
-  Old-growth Reserves
-  Lakes
-  Proposed Unit Boundaries
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  AHMU-Class 4 Streams
-  Existing Classified Roads

-  Existing Closed Roads
-  Proposed Classified Roads
-  Proposed Temporary Roads
-  500-ft. Contour Interval
-  100-ft. Contour Interval
-  Stream Numbers
-  Proposed Dispersed Picnic Site
-  Proposed Dispersed Camp Site

-  Existing Picnic Site
-  Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	90c	Unit Size :	38	acres
Aerial Photo:	1999 2398-100	Volume strata:	26	acres high
VCU:	452		11	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	300	mbf

Harvest Treatment: 75% retention, remove trees in corridors north of Road 40822 and scattered trees south of the road

Logging/Transportation Systems: Cable yarding / Road 40822, a temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class IV, Channel Type HC0

Streams 2 and 3 are Class III, Channel Type HC5

Mitigation: *Stream 1:* Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding where feasible.

Streams 2 and 3: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16.

Concern: Road 40822 and one temporary road access this unit.

Mitigation: After harvest, put Road 40822 into "storage" from the junction of the temporary road into unit 88b to the end of the road. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil. Close the temporary road and remove all drainage structures after harvest.

Soils

Concern: The northern unit boundary is adjacent to steep slopes > 72%.

Mitigation: Check slope stability during layout and modify boundary to avoid any unstable slopes.

Wildlife

Concern: The unit contains high value marten habitat.

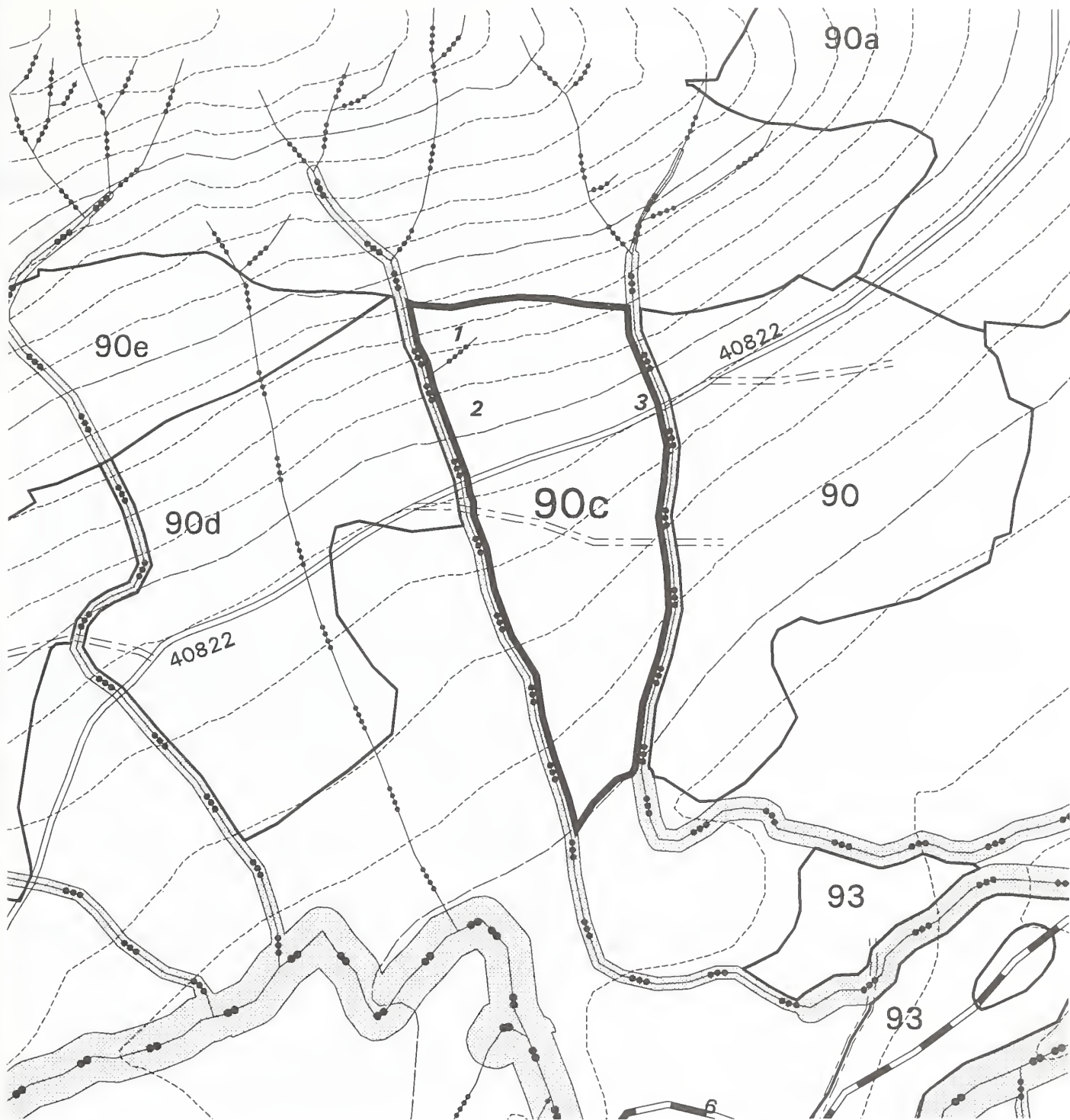
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees displaying windfirm characteristics will be favored for retention.

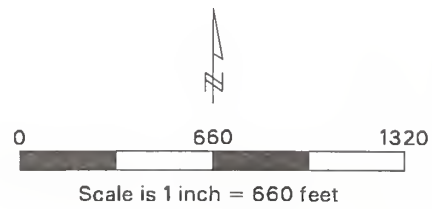
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	90d	Unit Size :	51 acres	
Aerial Photo:	1999 2398-88	Volume strata:	21	acres high
VCU:	452		28	acres medium
Land Use Designation:	Modified Landscape, Timber Production			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	370 mbf	

Harvest Treatment: 75% retention, remove trees in corridors north of Road 40822 and dispersed throughout the unit south of the road

Logging/Transportation Systems: Cable yarding / one temporary road, Road 40822

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Streams 1 and 3 are Class III, Channel Type HC5

Stream 2 is Class IV, Channel Type HC5

Mitigation: *Streams 1 and 3:* No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: Apply BMP 13.16. Use partial suspension and split line yarding where feasible.

Concern: Road 40822 runs through this unit. A temporary road also accesses the unit.

Mitigation: After harvest, put Road 40822 into "storage" from the junction of the temporary road into unit 88b to the end of the road. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil. Close the temporary road and remove all drainage structures after harvest.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Concern: The unit contains high value deer winter habitat in the southern part of the unit.

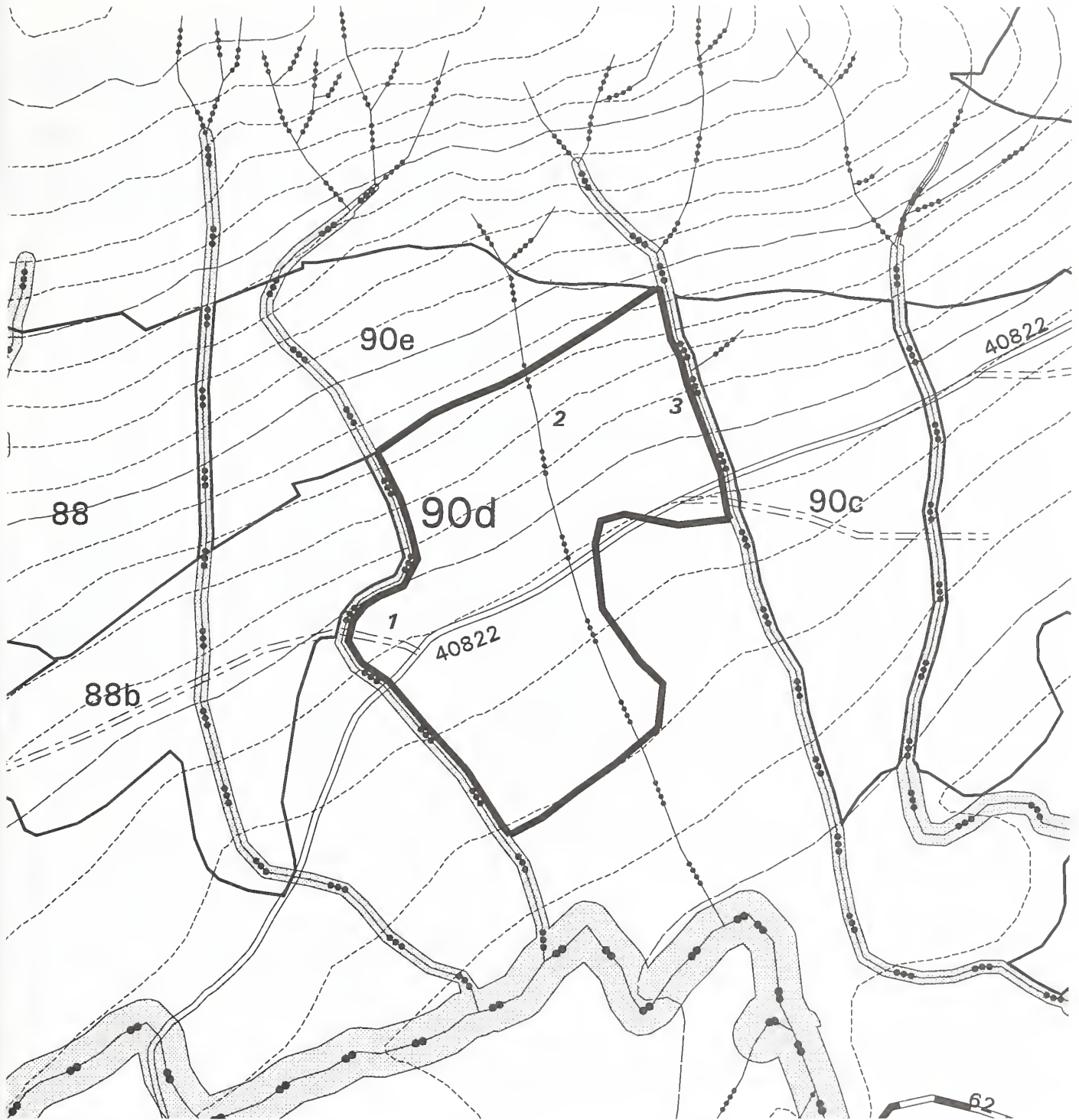
Mitigation: Retention of 75% of the stand will maintain winter habitat of a slightly lower quality. The stand will recover to full value in 40 years.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees displaying windfirm characteristics will be favored for retention.

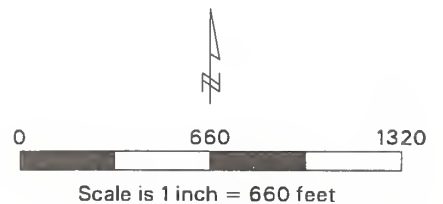
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- 1
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	90e	Unit Size :	31	acres
Aerial Photo:	1999 2398-88	Volume strata:	14	acres high
VCU:	452		16	acres medium
Land Use Designation:	Scenic Viewshed, Modified Landscape, Timber Production			
Within Inventoried Roadless Area?	Yes	Estimated timber volume:	580	mbf

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Helicopter yarding. Use landings on Road 40822 or Road 6282.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Streams 1 and 2 are Class III, Channel Type HC5
Stream 3 is Class IV, Channel Type HC5

Mitigation: *Streams 1 and 2:* No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).
Stream 3: Apply BMP 13.16. Use partial suspension and split line yarding where feasible.

Soils

Concern: The northern unit boundary is adjacent to steep slopes > 72%.
Mitigation: Check slope stability during layout and modify boundary to avoid any unstable slopes.

Wildlife

Concern: The unit contains high value marten habitat.
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

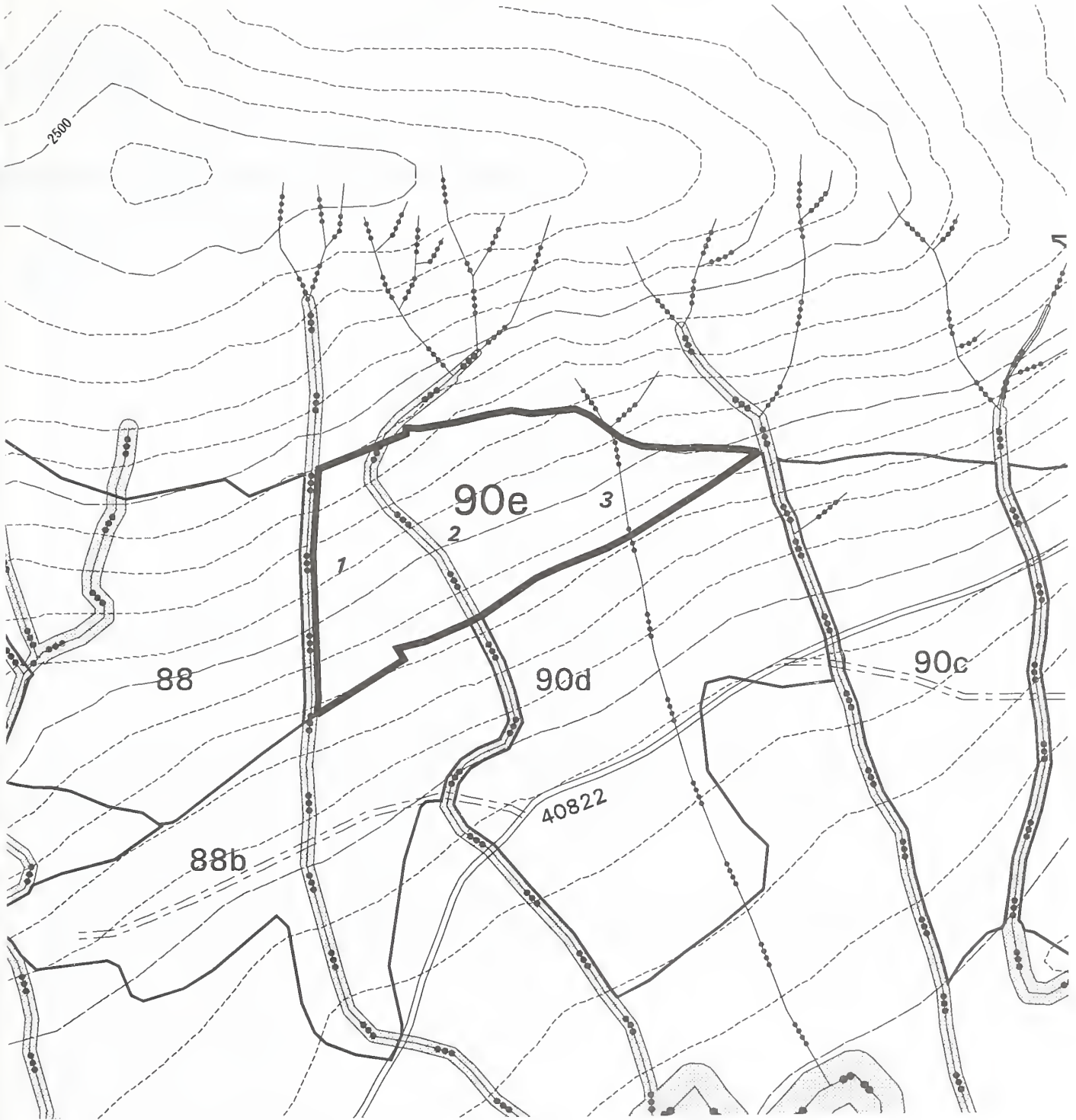
Vegetation

Concern: Location makes the stand susceptible to potential windthrow.
Mitigation: Trees displaying windfirm characteristics will be favored for retention.

Transportation

Concern: The unit is not accessible by road due to steep terrain.
Mitigation: Use helicopter logging to access the unit.

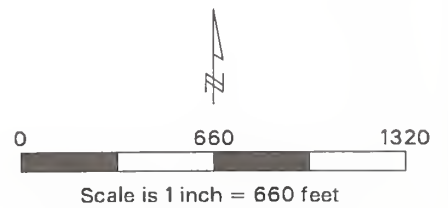
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	92	Unit Size :	14 acres
Aerial Photo:	1999 2398-98	Volume strata:	2 acres high
VCU:	452		12 acres medium
Land Use Designation:	Modified Landscape		
Within Inventoried Roadless Area?	No	Estimated timber volume:	240 mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type HC1

Stream 2 is Class II, Channel Type HC2

Mitigation: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 100'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: A temporary road from Road 6282 provides access to the unit for shovel yarding.

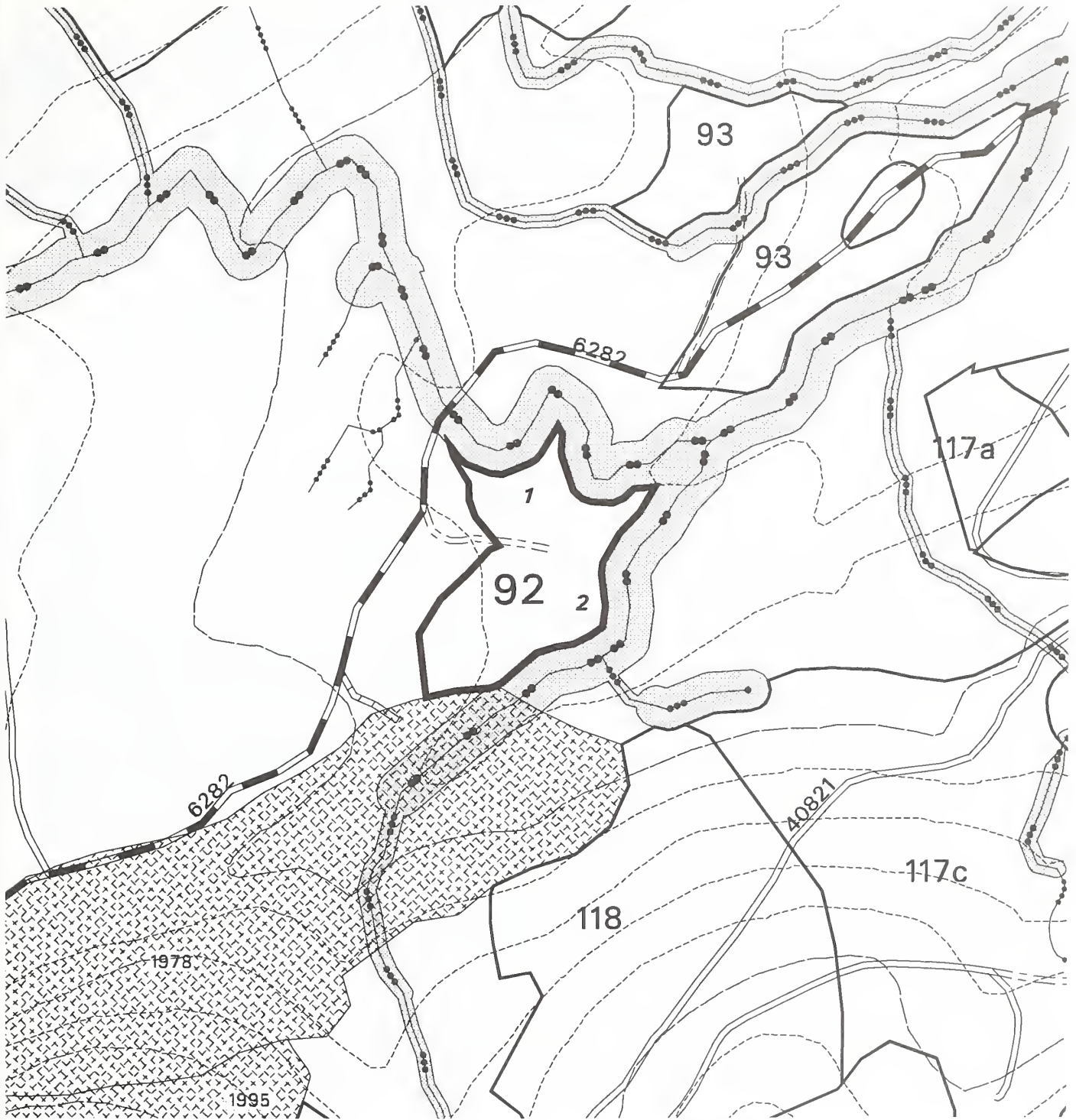
Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wetlands

Concern: There are 10 acres of forested wetland within the northern two-thirds of the unit.

Mitigation: Avoid harvesting trees on areas that are unsuitable for timber production.

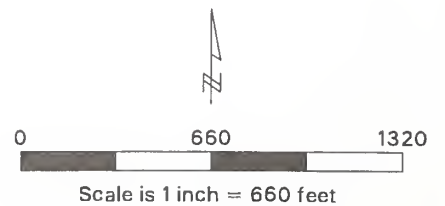
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	93	Unit Size :	24 acres
Aerial Photo:	1999 2398-99	Volume strata:	10 acres high
VCU:	452		10 acres medium
Land Use Designation:	Modified Landscape		
Within Inventoried Roadless Area?	No	Estimated timber volume:	360 mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type MC2
Stream 2 is Class III, Channel Type HC3
Stream 3 is Class III, Channel Type MC1

Mitigation: *Stream 1:* No commercial timber harvest within 100'. No programmed commercial timber harvest within the remainder of the Riparian Management Area, defined as the side slope break. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6, 12.6a, and 13.16.

Stream 3: No programmed commercial timber harvest within the Riparian Management Area, defined as the side slope break. Apply BMPs 12.6, 12.6a, and 13.

Concern: A temporary road from Road 6282 provides access to the unit for shovel yarding.

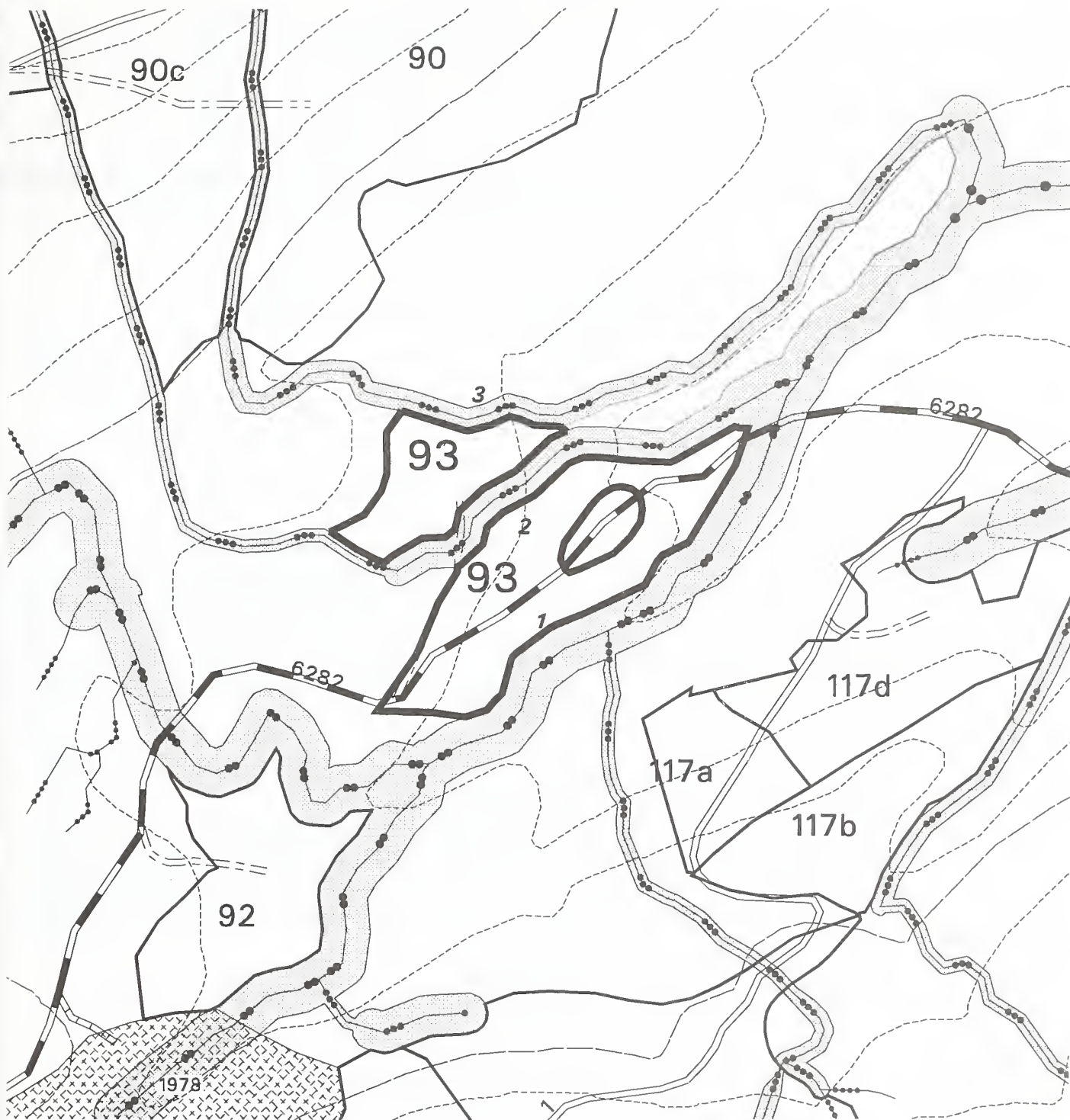
Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wetlands

Concern: There are 20 acres of forested wetland within the unit.

Mitigation: Avoid harvesting trees on areas that are unsuitable for timber production.

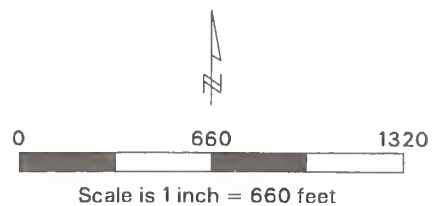
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	98	Unit Size :	18 acres
Aerial Photo:	1999 2398-155	Volume strata:	12 acres high
VCU:	452		6 acres medium
Land Use Designation:	Modified Landscape		
Within Inventoried Roadless Area?	No	Estimated timber volume:	310 mbf

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Cable yarding / one temporary road and Road 6281

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type HC1/MM1
Stream 2 is Class I, Channel Type HC1

Mitigation: *Stream 1:* No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 120'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 100'. Apply BMPs 12.6, 12.6a, and 13.16.

Concern: A temporary road provides access to this unit from Road 6281. Road 6281 is presently closed to traffic due to alder growth on the roadway.

Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil. After harvest, close Road 6281 beyond the proposed recreation parking area at MP 0.5, remove all drainage structures past the parking site, and add waterbars as needed.

Wildlife

Concern: The unit contains high value marten habitat.

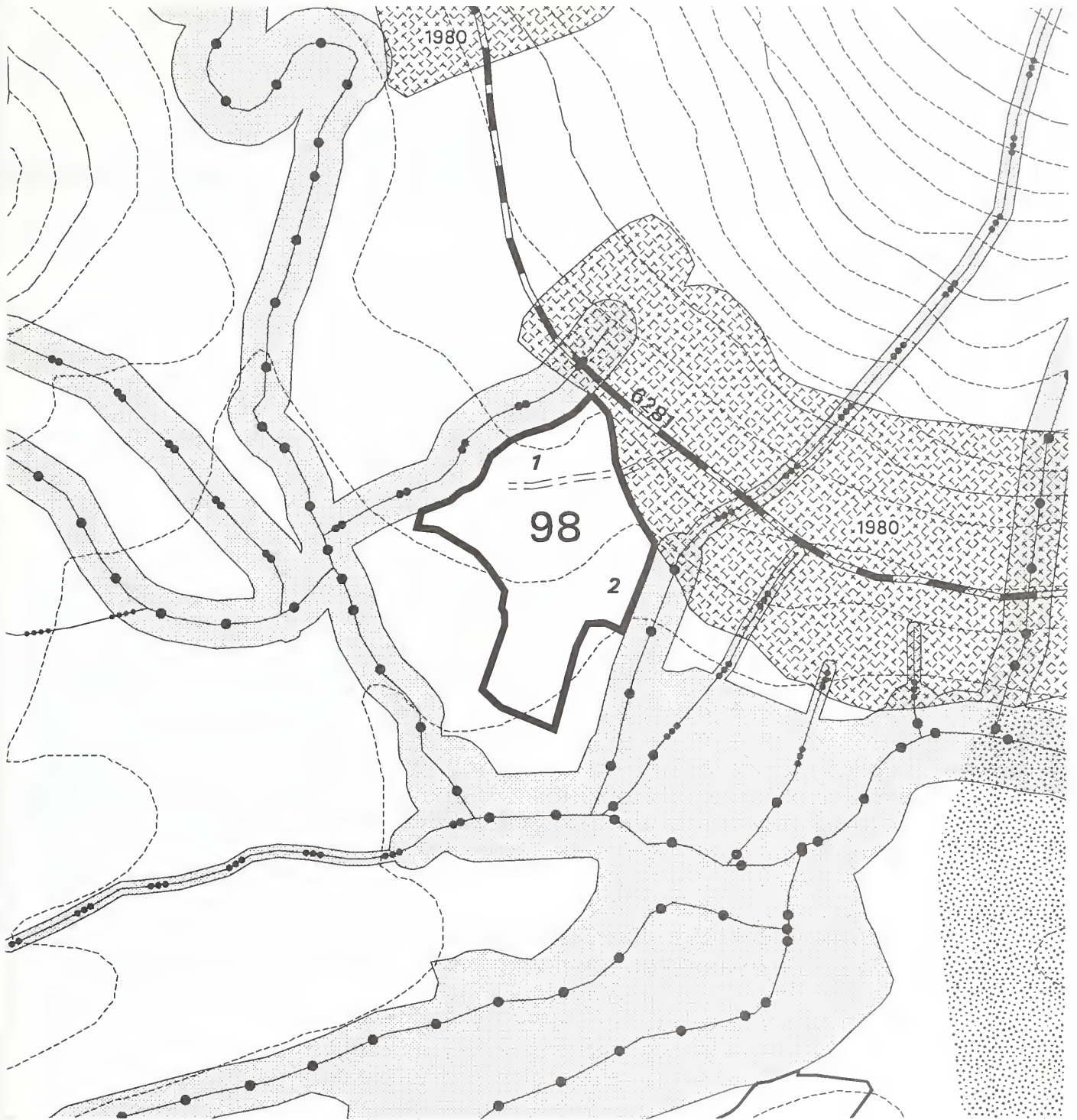
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.












Wetlands









Concern: There are 9 acres of forested wetland within the southern half of the unit.



Mitigation: Avoid harvesting trees on areas that are unsuitable for timber production.

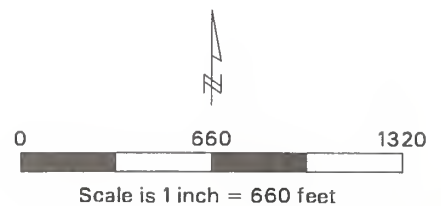
Selected Alternative



-  Existing Managed Stands
-  Riparian Management Area
-  Beach Buffer
-  Old-growth Reserves
-  Lakes
-  Proposed Unit Boundaries
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  AHMU-Class 4 Streams
-  Existing Classified Roads

-  Existing Closed Roads
-  Proposed Classified Roads
-  Proposed Temporary Roads
-  500-ft. Contour Interval
-  100-ft. Contour Interval
-  Stream Numbers
-  Proposed Dispersed Picnic Site
-  Proposed Dispersed Camp Site

-  Existing Picnic Site
-  Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	102	Unit Size :	14 acres
Aerial Photo:	1999 2398-156	Volume strata:	1 acres high
VCU:	452		11 acres medium
Land Use Designation:	Modified Landscape		
Within Inventoried Roadless Area?	No	Estimated timber volume:	220 mbf

Harvest Treatment: 20-30% retention; leave trees scattered or in clumps

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is a Class IV, Channel Type MM0
Stream 2 is a Class I, Channel Type MM1

Mitigation: *Stream 1:* Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding and leave reserve trees where feasible.
Stream 2: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 120'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16.

Concern: A temporary road provides access to this unit from Road 6282.

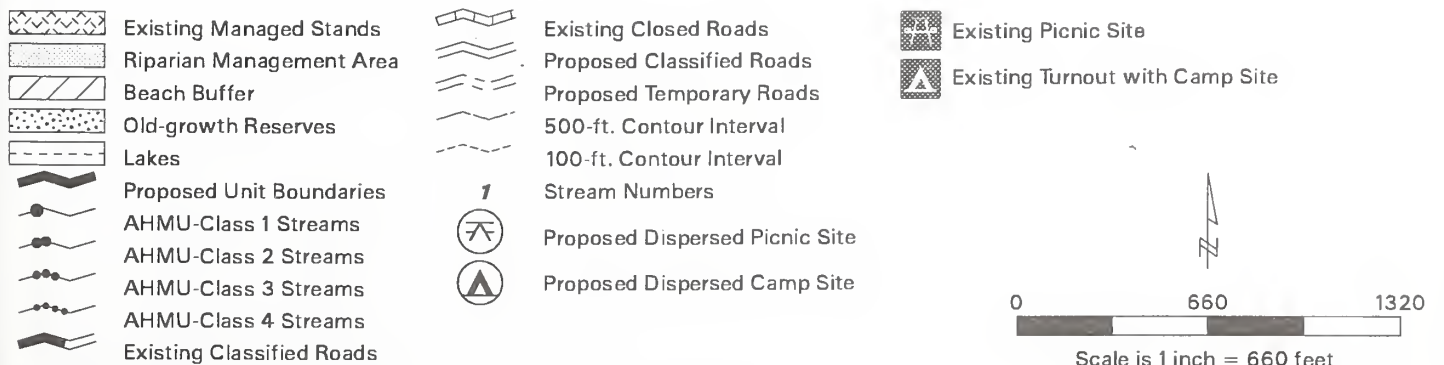
Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	103	Unit Size :	4 acres	
Aerial Photo:	1998 2198-37	Volume strata:	4	acres high
VCU:	452		0	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	70	mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type MM1.

Mitigation: No commercial timber harvest with 100'. No programmed commercial timber harvest within the Riparian Management Area, or 120'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: A temporary road provides access to this unit from Road 6282.

Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

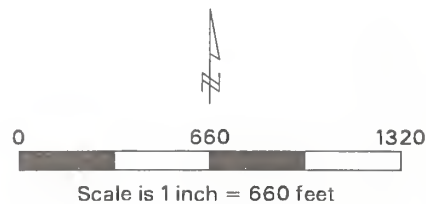
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	104b	Unit Size :	11 acres	
Aerial Photo:	1999 2398-156	Volume strata:	0	acres high
VCU:	452		11	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	180	mbf

Harvest Treatment: 50-66% retention, remove trees 2-acre or less openings or dispersed throughout the unit

Logging/Transportation Systems: Shovel yarding /one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type MC1 that flows into a Class I, Channel Type FP3

Mitigation: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 130'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: A temporary road provides access to this unit from Road 6282.

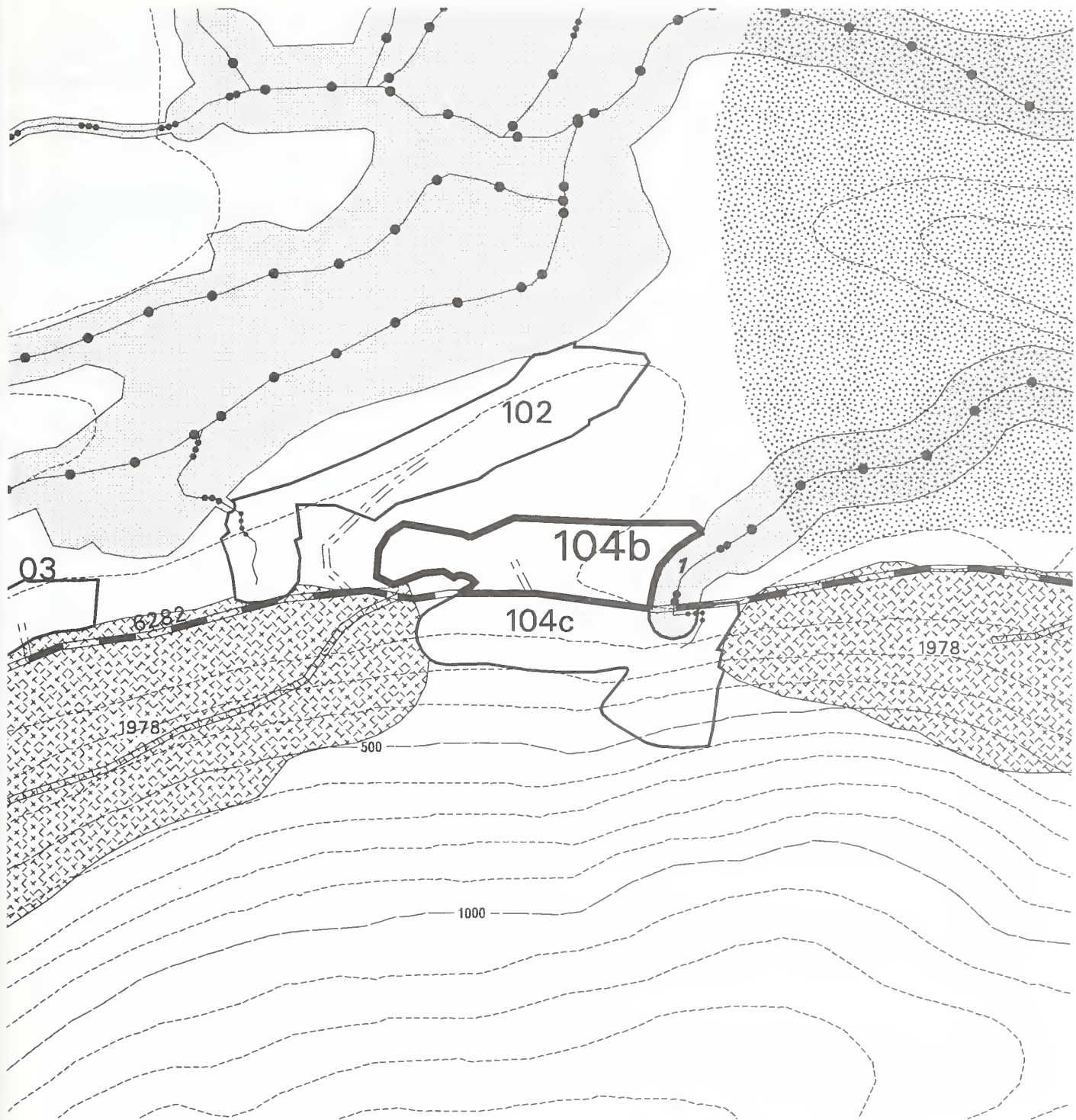
Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.












Wetlands









Concern: There are 9 acres of muskeg/forested wetland within the unit.



Mitigation: Avoid muskeg areas when shovel yarding. Do not harvest trees on areas that are unsuitable for timber production.

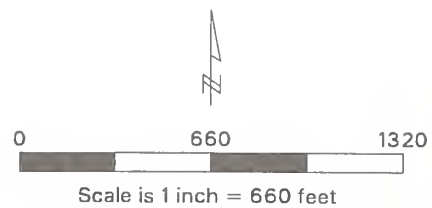
Selected Alternative



-  Existing Managed Stands
-  Riparian Management Area
-  Beach Buffer
-  Old-growth Reserves
-  Lakes
-  Proposed Unit Boundaries
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  AHMU-Class 4 Streams
-  Existing Classified Roads

-  Existing Closed Roads
-  Proposed Classified Roads
-  Proposed Temporary Roads
-  500-ft. Contour Interval
-  1000-ft. Contour Interval
-  Stream Numbers
-  Proposed Dispersed Picnic Site
-  Proposed Dispersed Camp Site

-  Existing Picnic Site
-  Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	104c	Unit Size :	13 acres	
Aerial Photo:	1999 2398-156	Volume strata:	7	acres high
VCU:	452		6	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	210	mbf

Harvest Treatment: 50-66% retention, remove trees in 2-acre or less corridors

Logging/Transportation Systems: Cable yarding / Road 6282 serves as the lower boundary of the unit. The road will provide a continuous landing.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type MC1
Stream 2 is Class IV, Channel Type HC0

Mitigation: *Stream 1:* No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 130'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: Apply BMP 13.16. Use partial suspension and split line yarding where feasible.

Soils

Concern: Steep slopes occur in the vicinity of the southern unit boundary.

Mitigation: The steep slopes along the southern unit boundary were avoided during unit design.

Wildlife

Concern: The unit contains high value marten habitat.

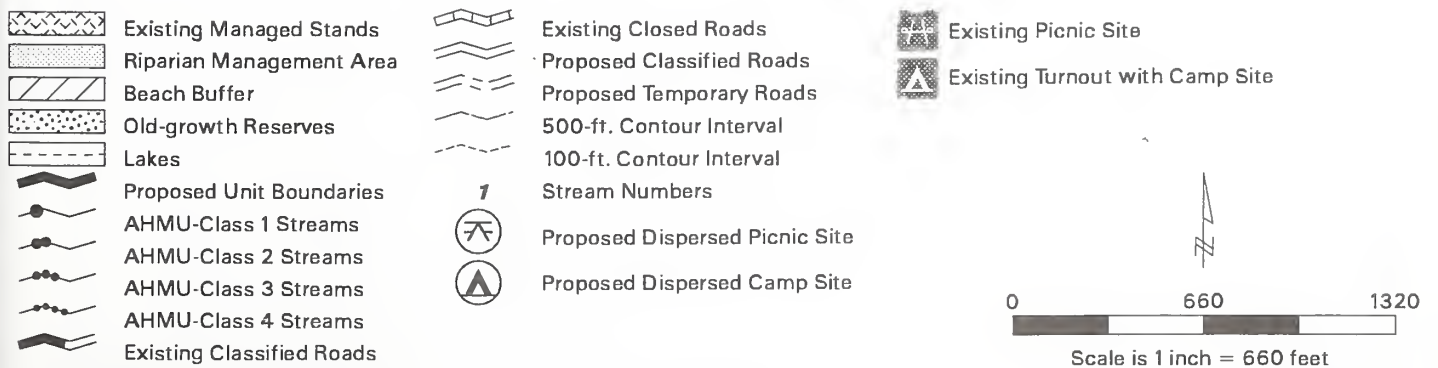
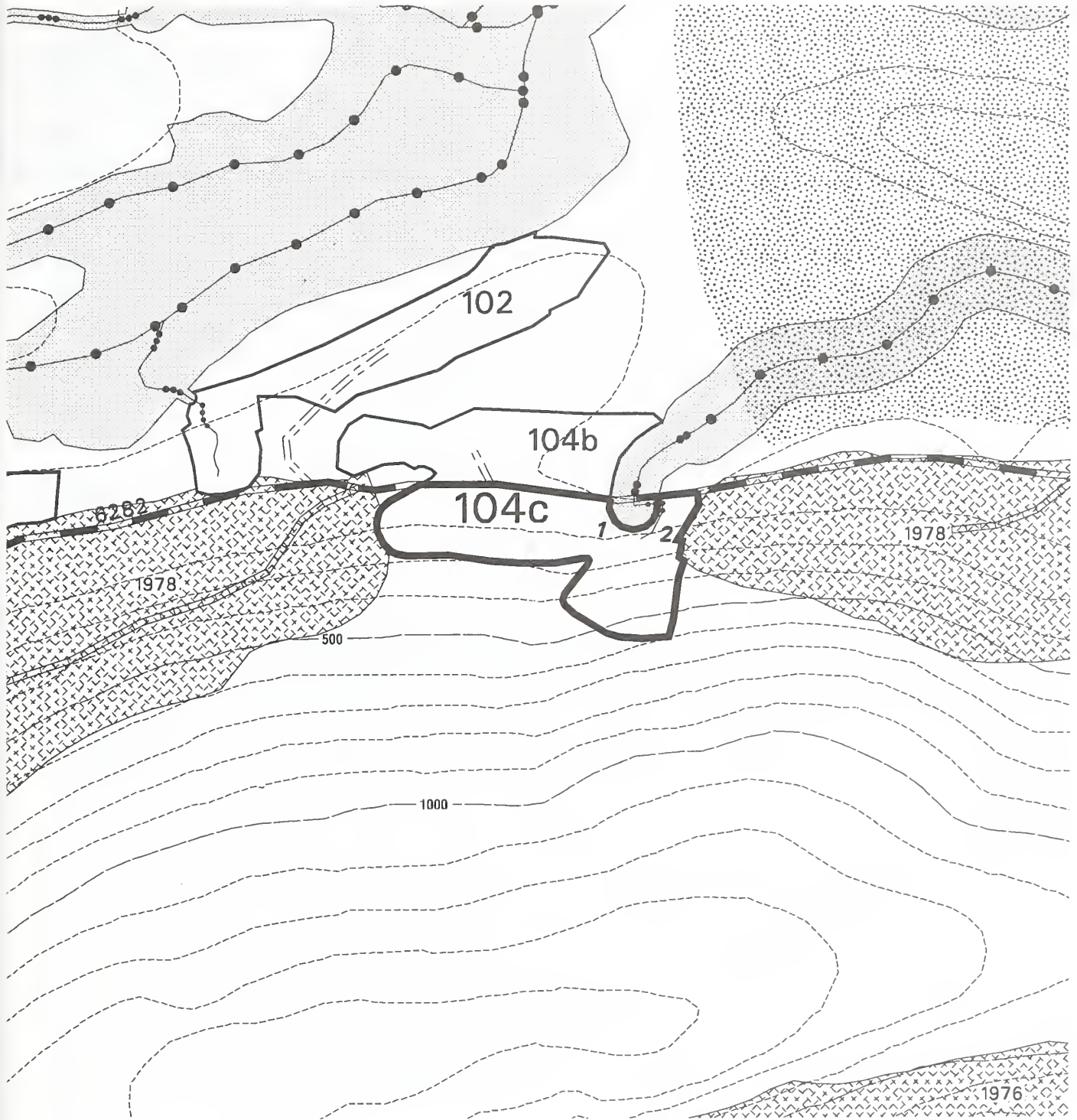
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

Mitigation: Retention of at least 50% of the stand and the unit size will meet the Partial Retention VQO.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #: **105**

Aerial Photo: **1998 2198-26**

VCU: **452**

Land Use Designation: **Scenic Viewshed**

Within Inventoried Roadless Area? **No**

Unit Size : **17 acres**

Volume strata: **0** acres high
12 acres medium

Estimated timber volume: **70 mbf**

Harvest Treatment: 75% retention, remove scattered trees or in clumps

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: A temporary road provides access to this unit from Road 6282.

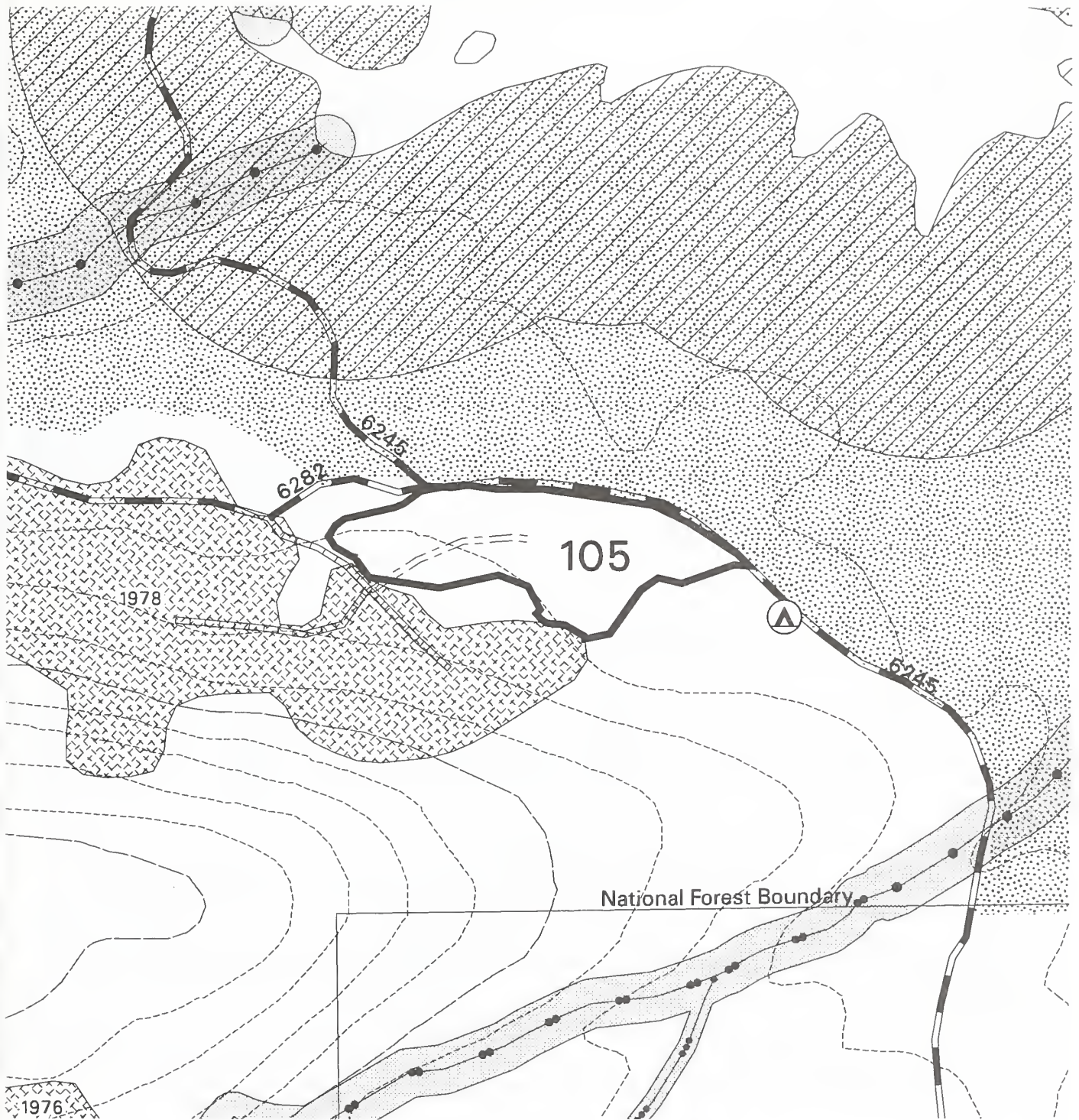
Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wetlands

Concern: There are 5 acres of muskeg/forested wetland mosaic on eastern side of the unit.

Mitigation: Avoid muskeg areas where practicable and do not harvest trees on areas that are unsuitable for timber production.

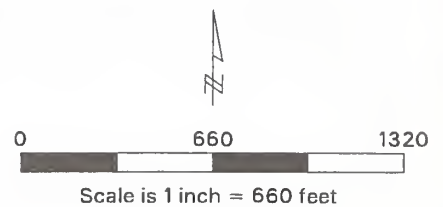
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	109	Unit Size :	62 acres	
Aerial Photo:	1998 2198-27	Volume strata:	38	acres high
VCU:	452		24	acres medium
Land Use Designation:	Scenic Viewshed, Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	570	mbf

Harvest Treatment: 50-66% retention, remove trees in 2-acre or less openings

Logging/Transportation Systems: Helicopter yarding. Use landings on Road 6283.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type HC1

Streams 2 and 3 are Class IV, Channel Type MM1

Stream 4 is a Class III, Channel Type HC2

Mitigation: *Stream 1:* No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area or 100'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Streams 2 and 3: Apply BMP 13.16. Use partial suspension and split line yarding where feasible.

Stream 4: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6, 12.6a, and 13.16.

Concern: Road 6283 is closed to traffic due to alder growth on the roadway, and will be reopened for timber harvest.

Mitigation: After harvest, close Road 6283, remove drainage structures and add waterbars as needed.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Concern: Maintain wildlife corridors between Old-growth Reserves.

Mitigation: Maintain stand structure for landscape connectivity between Old-growth Reserves.

Scenery

Concern: A portion of the unit is visible from Sumner Strait and the unit is visible in the background from Crystal Mountain.

Mitigation: Retention of at least 50% of the stand will meet the Partial Retention VQO.

Wetlands

Concern: There are 5 acres of muskeg/forested wetland mosaic along the south central boundary.

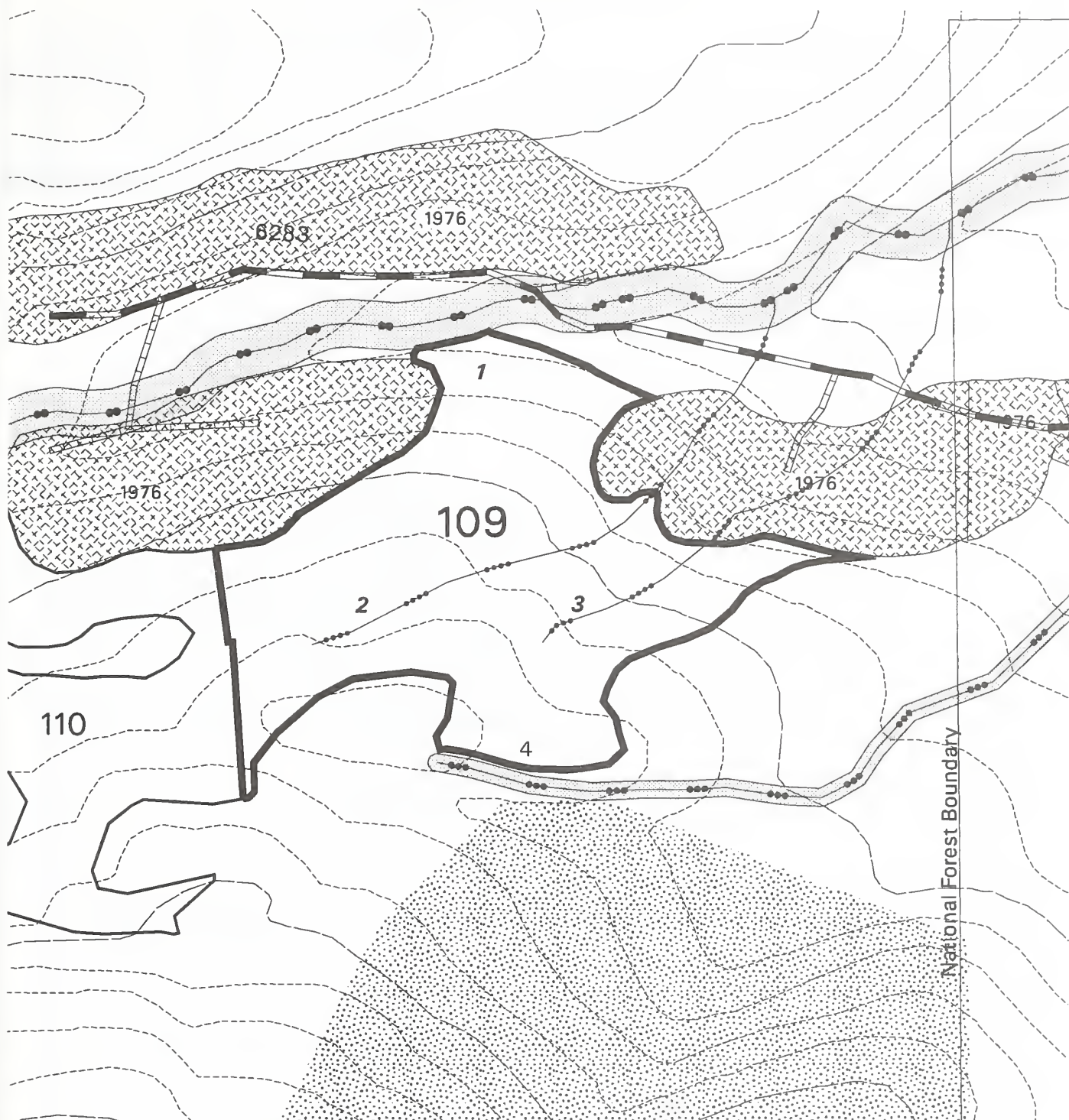
Mitigation: Design boundary during layout to avoid muskeg areas.

Transportation

Concern: The unit is not accessible by road due to steep terrain.

Mitigation: Use helicopter logging to access the unit.

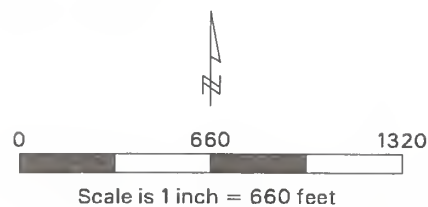
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	110	Unit Size :	56 acres	
Aerial Photo:	1998 2198-36	Volume strata:	8	acres high
VCU:	452		42	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	420	mbf

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Helicopter yarding. Use landings on Road 6283.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC3

Stream 2 is Class II, Channel Type HC1

Mitigation: *Stream 1:* No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 100'. Apply BMPs 12.6, 12.6a, and 13.16.

Concern: Road 6283 is currently closed to traffic due to alder growth and will be reopened for harvest.

Mitigation: After harvest, close the road, remove drainage structures, and add waterbars as needed.

Soils

Concern: Areas with steep slopes (>72%) occur adjacent to the unit.

Mitigation: The unit was modified to exclude the area of steep slopes.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

Mitigation: Retention of at least 50% of the stand will meet the Partial Retention VQO.

Wetlands

Concern: There are 21 acres of muskeg/forested wetland scattered throughout the unit.

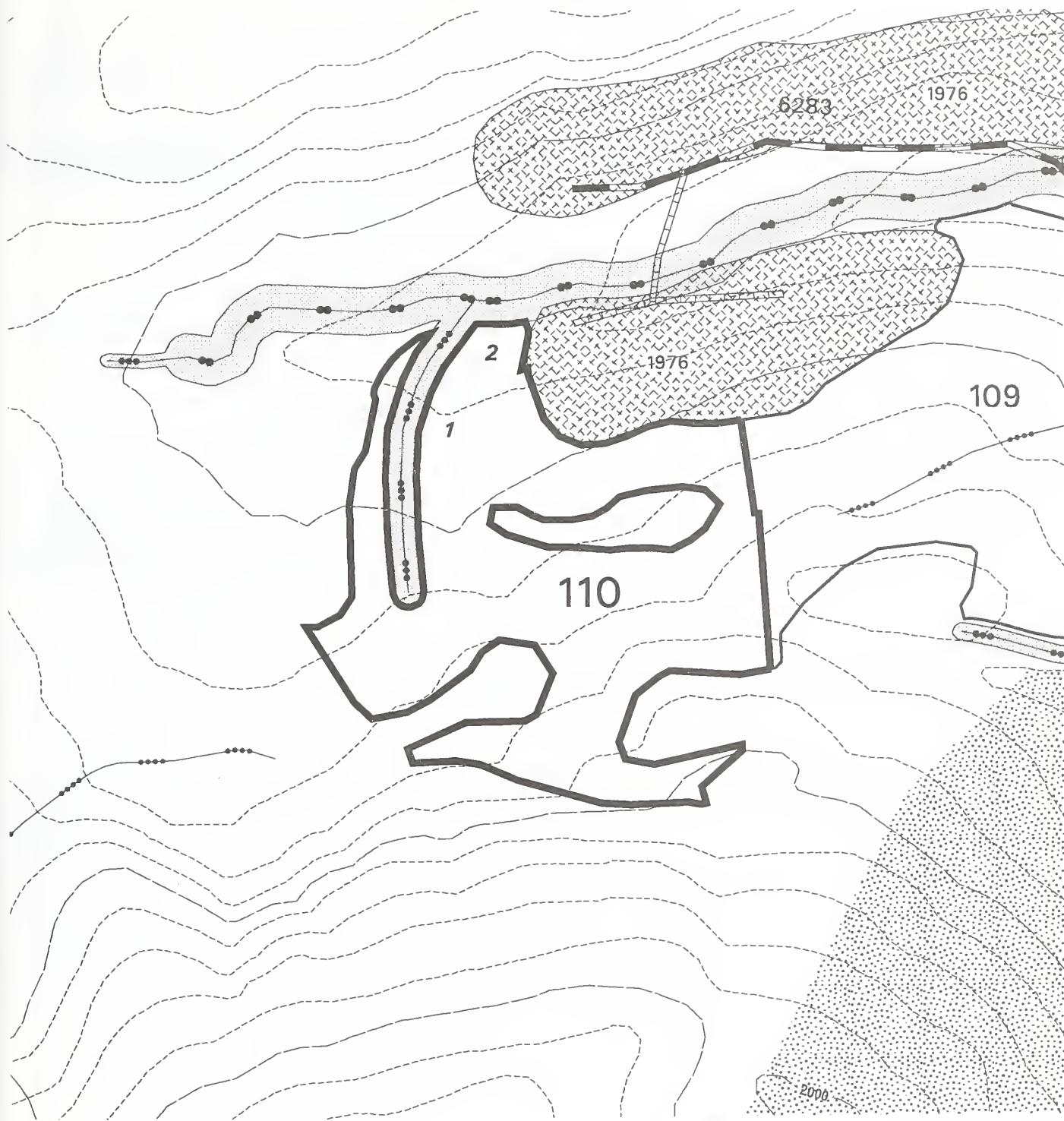
Mitigation: Avoid muskeg areas where practicable. Helicopter logging will achieve suspension to minimize damage.

Transportation

Concern: The unit is not accessible by road due to steep terrain.

Mitigation: Use helicopter to access the unit.

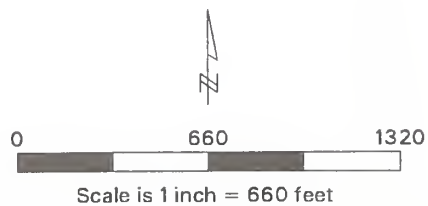
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #: **117a**

Aerial Photo: **1999 2398-99**

VCU: **452**

Land Use Designation: **Modified Landscape**

Within Inventoried Roadless Area? **No**

Unit Size : **8 acres**

Volume strata: **8** acres high
0 acres medium

Estimated timber volume: **100 mbf**

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Cable yarding / Road 40821

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Road 40821 accesses the unit.

Mitigation: Put Road 40821 into "storage" after harvest is complete. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

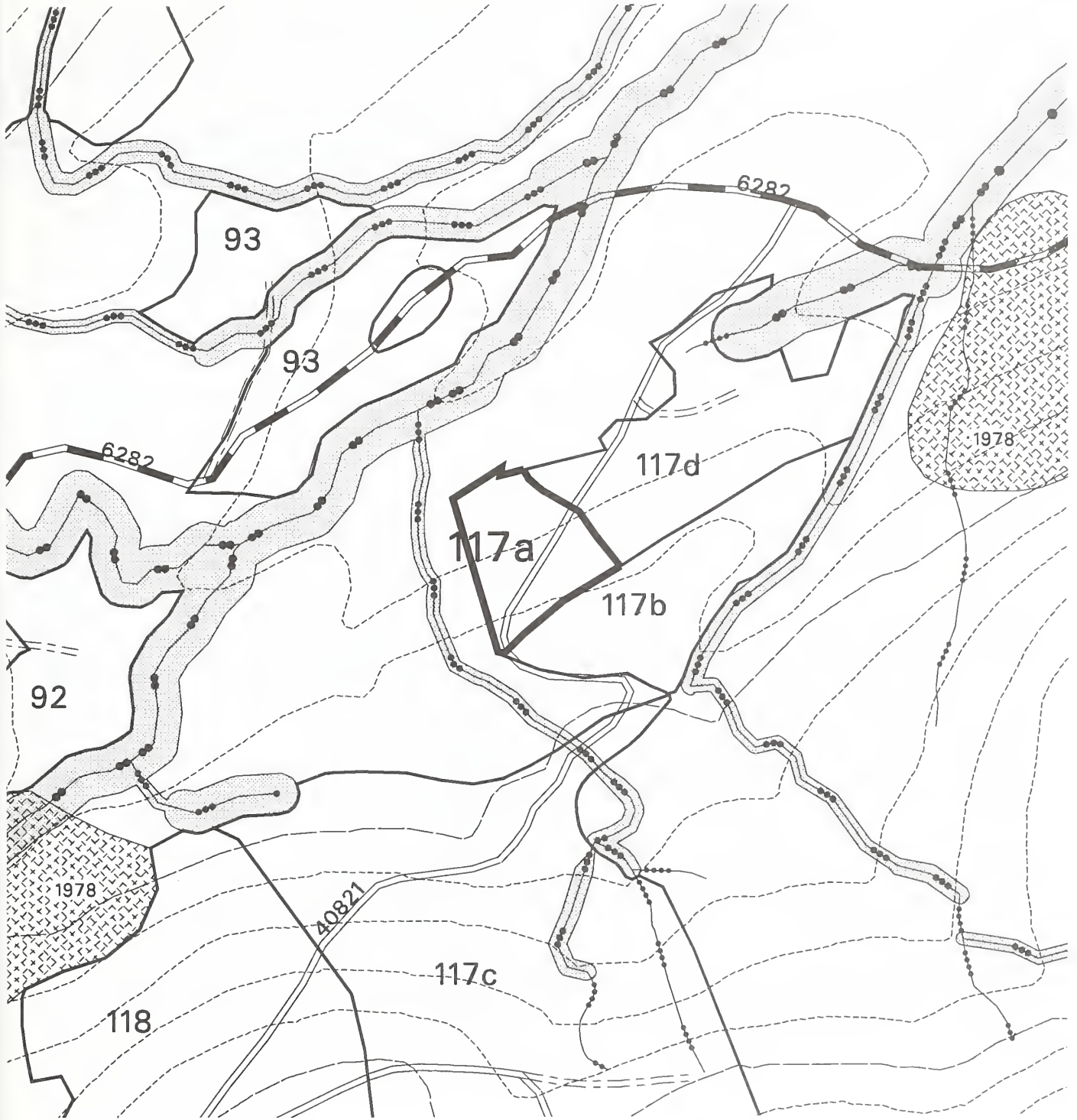
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

Mitigation: Retention of at least 20% of the stand will meet the Modification VQO.

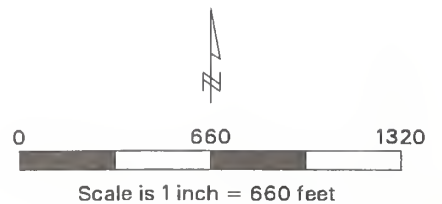
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- 1
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	117b	Unit Size :	14 acres	
Aerial Photo:	1999 2398-99	Volume strata:	0	acres high
VCU:	452		14	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	220	mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Cable yarding / Road 40821

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC6

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: Road 40821 runs through this unit.

Mitigation: Put Road 40821 into "storage" after harvest is complete. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

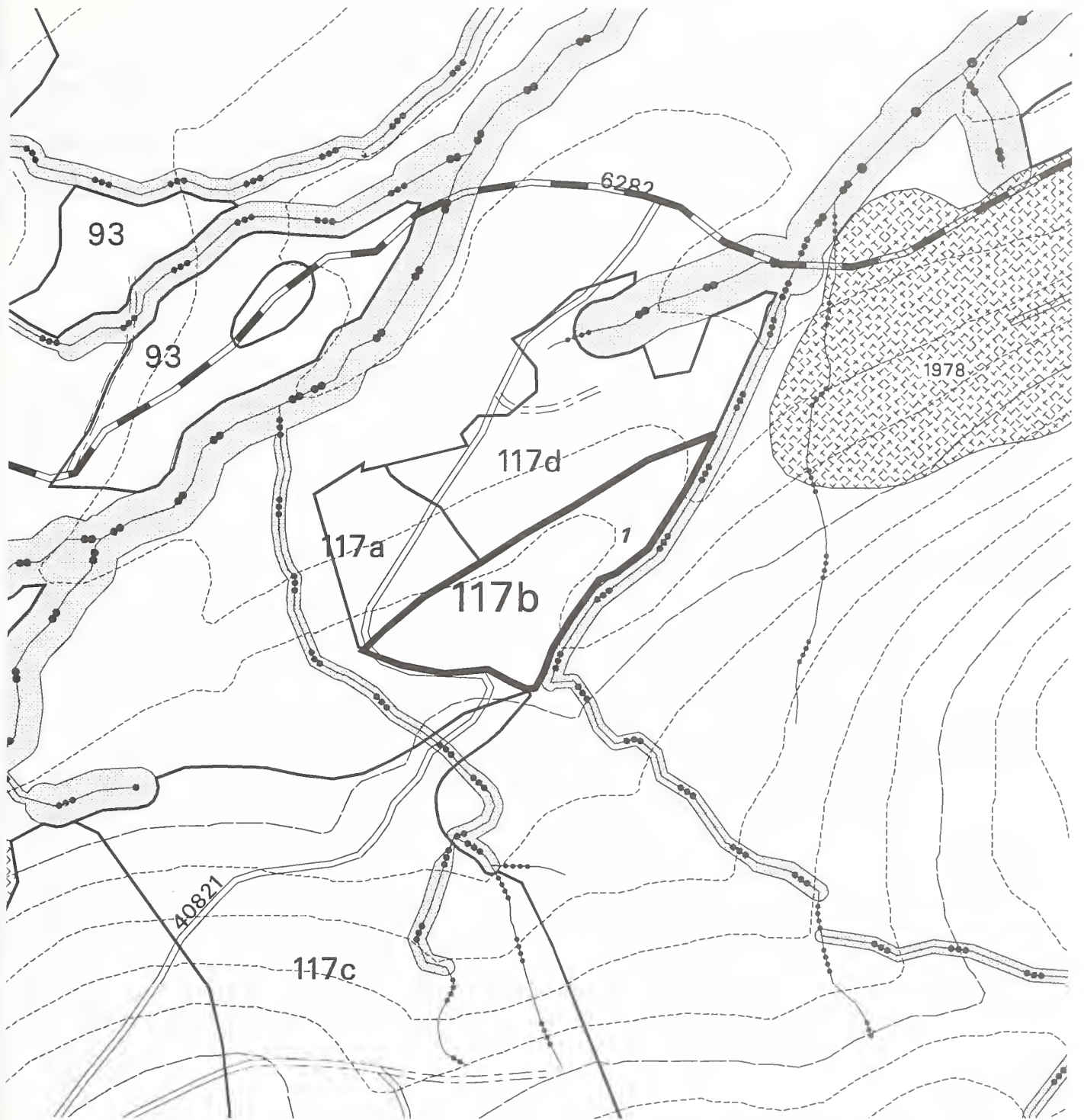
Mitigation: Retention of at least 20% of the stand will meet the Modification VQO.

Wetlands

Concern: There are 6 acres of muskeg/forested wetland along the northwestern boundary.

Mitigation: Design boundary during layout to avoid muskeg areas.

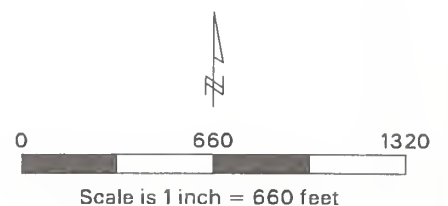
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	117c	Unit Size :	73 acres	
Aerial Photo:	1999 2398-98	Volume strata:	21	acres high
VCU:	452		49	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	620	mbf

Harvest Treatment: 50-66% retention, remove trees in 2-acre or less corridors

Logging/Transportation Systems: Cable yarding / one temporary road and Road 40821

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC2
Streams 2 and 3 are Class IV, Channel Type HC5
Stream 4 is Class III, Channel Type PA5

Mitigation: *Stream 1:* No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).
Streams 2, 3, and 4: Apply BMP 13.16. Use partial suspension and split line yarding and leave reserve trees where feasible.

Concern: Road 40821 runs through this unit. A temporary road also accesses the unit.

Mitigation: Put Road 40821 into "storage" after harvest. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: Meet marten standards and guidelines in the high volume strata in the southwest portion of the unit. See unit folder map.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

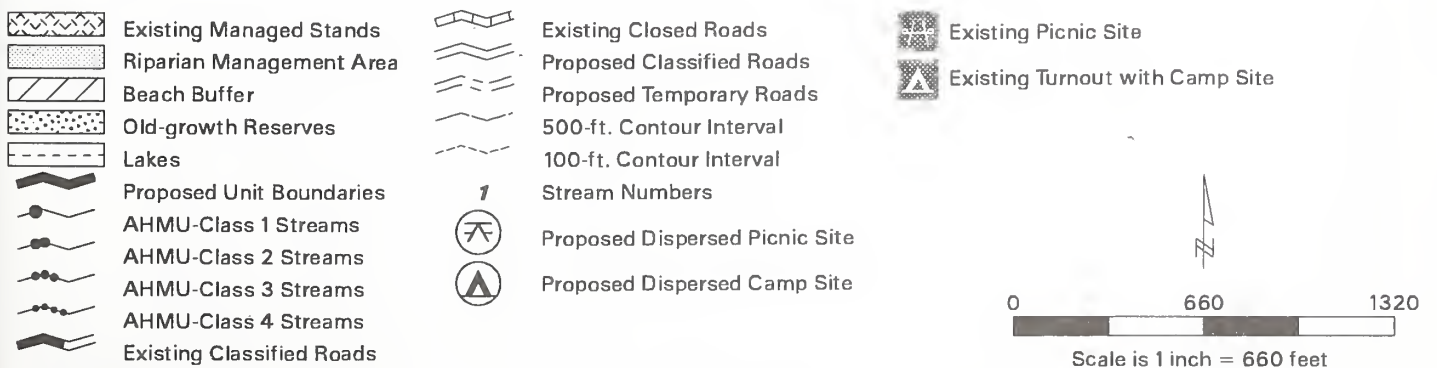
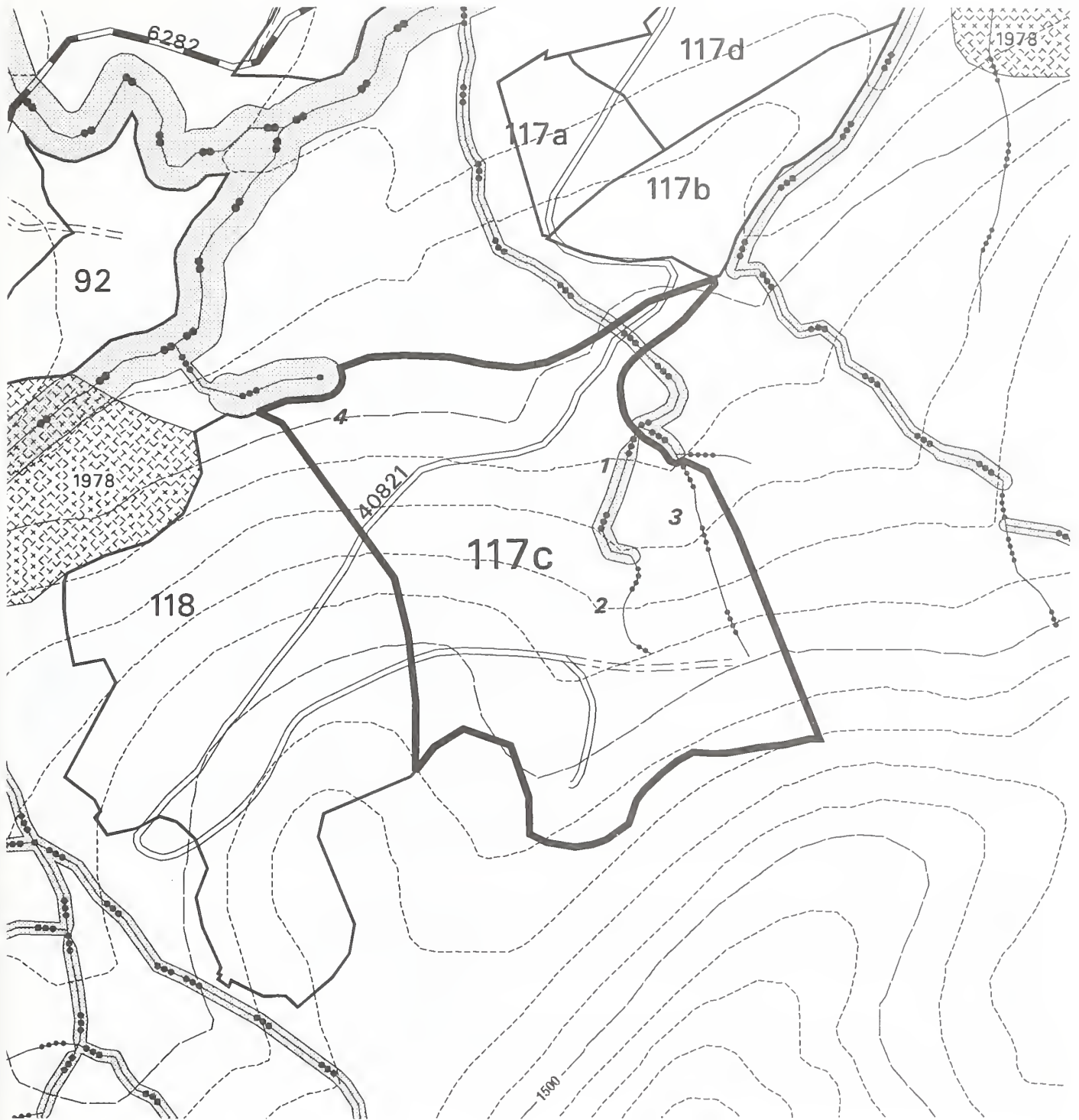
Mitigation: Retention of at least 50% of the stand will meet the Modification VQO. Avoid continuous corridors across the entire unit.

Wetlands

Concern: There are 15 acres of muskeg/forested wetland mosaic in the southern part of the unit and 19 acres in the northern part of the unit.

Mitigation: Avoid muskeg areas where practicable and do not harvest trees on areas that are unsuitable for timber production.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	117d	Unit Size :	19 acres
Aerial Photo:	1999 2398-99	Volume strata:	0 acres high
VCU:	452		19 acres medium
Land Use Designation:	Modified Landscape		
Within Inventoried Roadless Area?	No	Estimated timber volume:	190 mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Shovel yarding / one temporary road and Road 40821

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type MM1 flowing from a Class IV, Channel Type MM1
Stream 2 is Class III, Channel Type HC6

Mitigation: *Stream 1:* No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 120'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6, 12.6a, and 13.16.

Concern: Road 40821 and a temporary road access the unit.

Mitigation: Put Road 40821 into "storage" after harvest. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil. Close the temporary road and remove all drainage structures after harvest.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

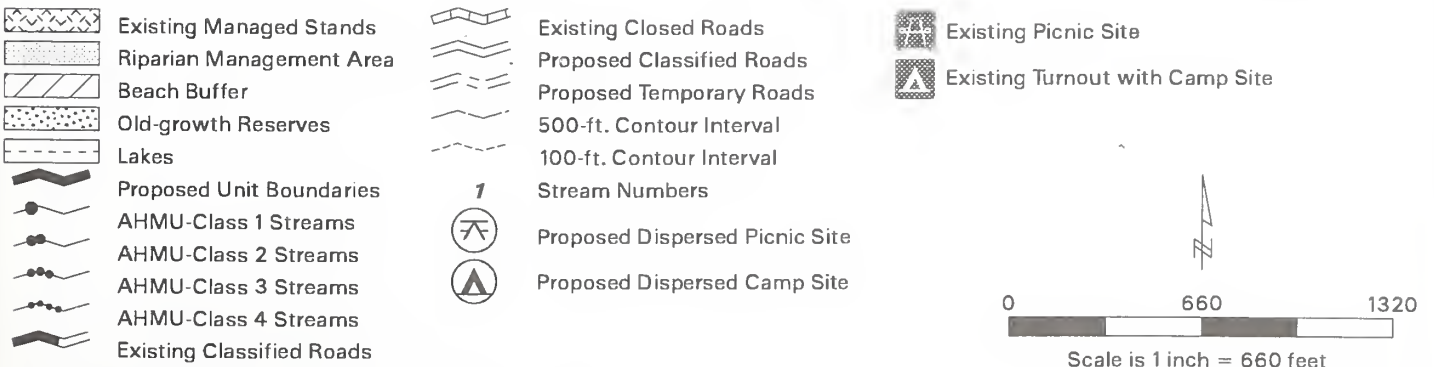
Mitigation: Retention of at least 20% of the stand will meet the Modification VQO.

Wetlands

Concern: There are 7 acres of muskeg/forested wetland mosaic in the southern part of the unit.

Mitigation: Avoid muskeg areas where practicable and do not harvest trees on areas that are unsuitable for timber production.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	118	Unit Size :	59 acres	
Aerial Photo:	1999 2398-98	Volume strata:	32	acres high
VCU:	452		27	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	1235	mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Cable yarding / Road 40821

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC5

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: Road 40821 accesses the unit.

Mitigation: Put Road 40821 into "storage" after harvest. Remove or bypass all drainage structures to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

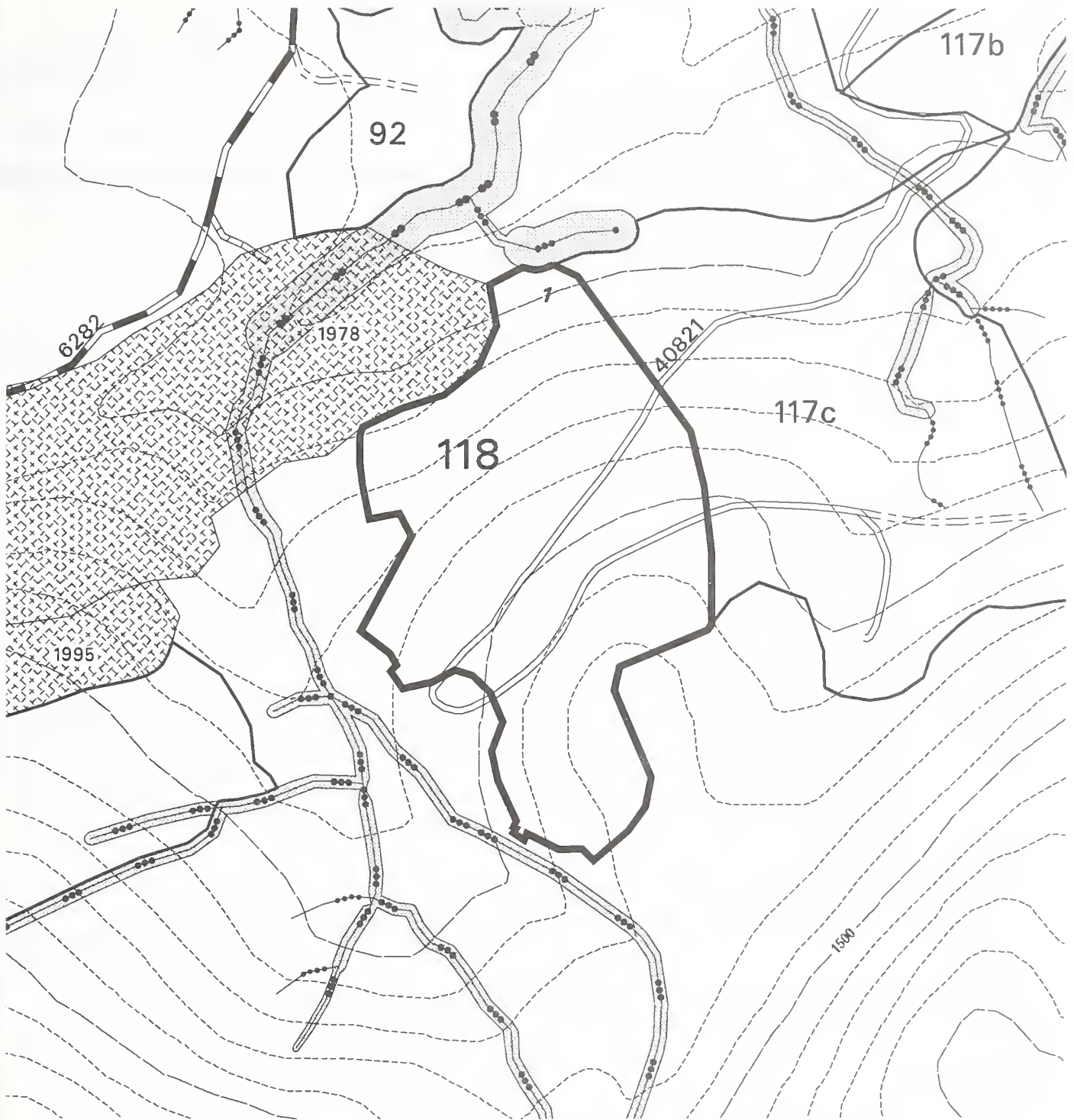
Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

Mitigation: Retention of at least 20% of the stand will meet the Modification VQO.

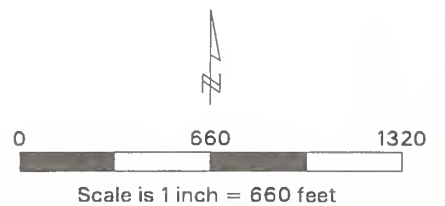
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #: **119**

Aerial Photo: **1999 2398-91**

VCU: **452**

Land Use Designation: **Modified Landscape**

Within Inventoried Roadless Area? **No**

Unit Size : **64 acres**

Volume strata: **53** acres high
11 acres medium

Estimated timber volume: **610 mbf**

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Helicopter yarding. Use landings on Road 40822 or Road 6282.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC5/HC6

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Soils

Concern: The north central unit boundary is adjacent to an area of unstable slopes. The southeastern portion of the unit is on slopes >72%.

Mitigation: The north central unit boundary was modified to avoid the area of unstable slopes. Leave unmerchantable trees where possible and achieve full suspension when yarding the southeastern portion of the unit.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

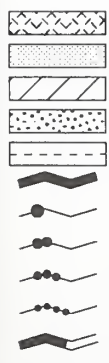
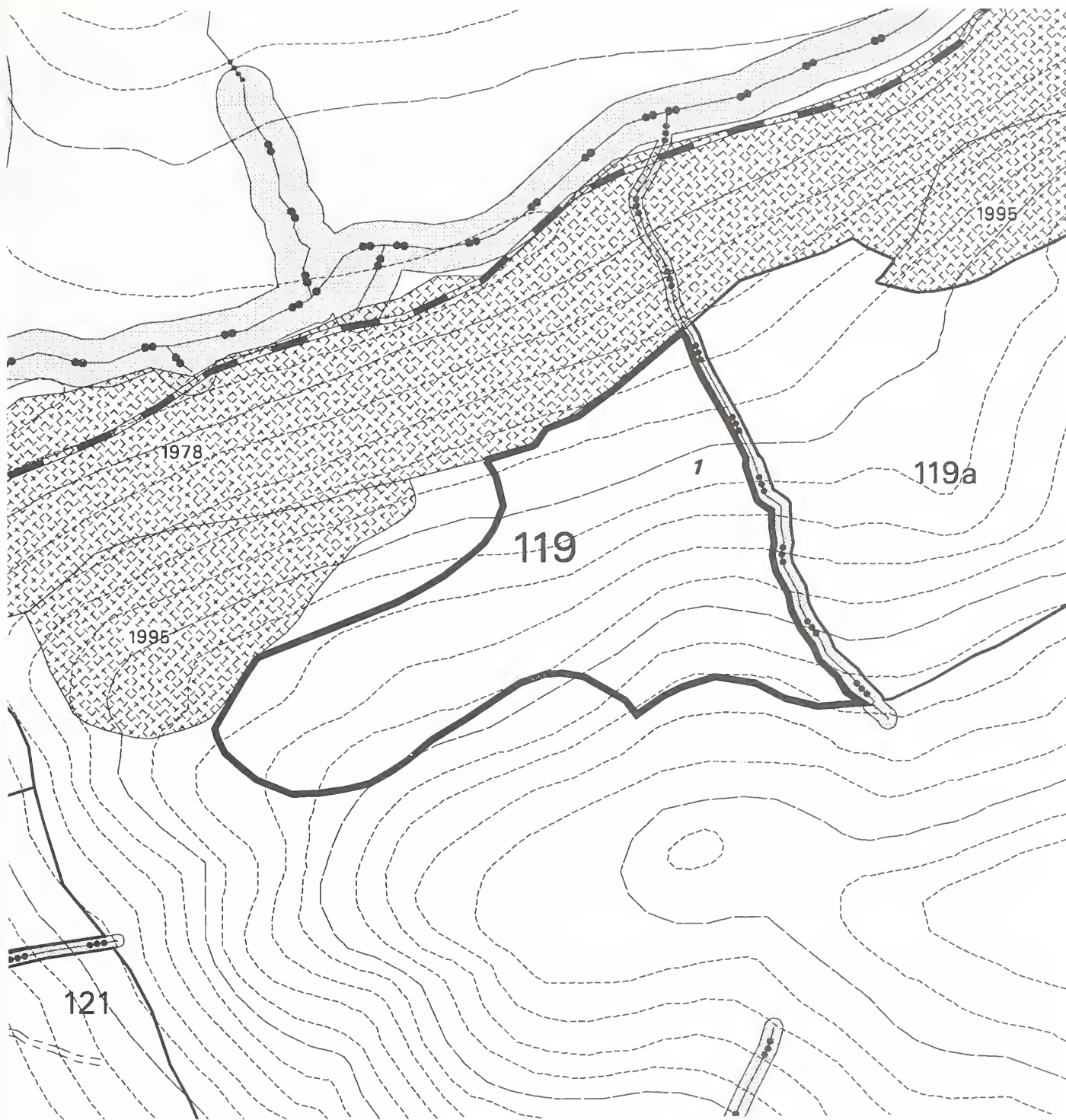
Mitigation: Retention of at least 50% of the stand will meet the Modification VQO.

Transportation

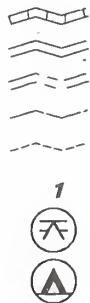
Concern: The unit is not accessible by road due to steep terrain.

Mitigation: Use helicopter to access the unit.

Selected Alternative



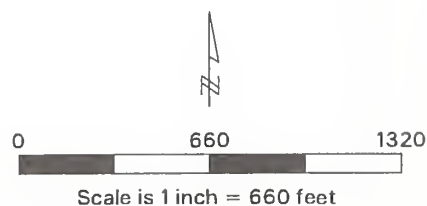
Existing Managed Stands
 Riparian Management Area
 Beach Buffer
 Old-growth Reserves
 Lakes
 Proposed Unit Boundaries
 AHMU-Class 1 Streams
 AHMU-Class 2 Streams
 AHMU-Class 3 Streams
 AHMU-Class 4 Streams
 Existing Classified Roads



Existing Closed Roads
 Proposed Classified Roads
 Proposed Temporary Roads
 500-ft. Contour Interval
 100-ft. Contour Interval
 Stream Numbers
 Proposed Dispersed Picnic Site
 Proposed Dispersed Camp Site



Existing Picnic Site
 Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #: **119a**

Aerial Photo: **1999 2398-91**

VCU: **452**

Land Use Designation: **Modified Landscape**

Within Inventoried Roadless Area? **No**

Unit Size : **111 acres**

Volume strata: **71** acres high
40 acres medium

Estimated timber volume: **1015 mbf**

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Helicopter yarding. Use landings on Road 6282.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Streams 1, 2, and 3 are Class III, Channel Type HC5
Stream 4 is Class III, Channel Type HC6

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Soils

Concern: The northwest corner of the unit is on slopes >72%.

Mitigation: A soil stability investigation found these slopes to be stable and suitable for timber harvest. Leave unmerchantable trees where possible and achieve full suspension when yarding the northwestern portion of the unit.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

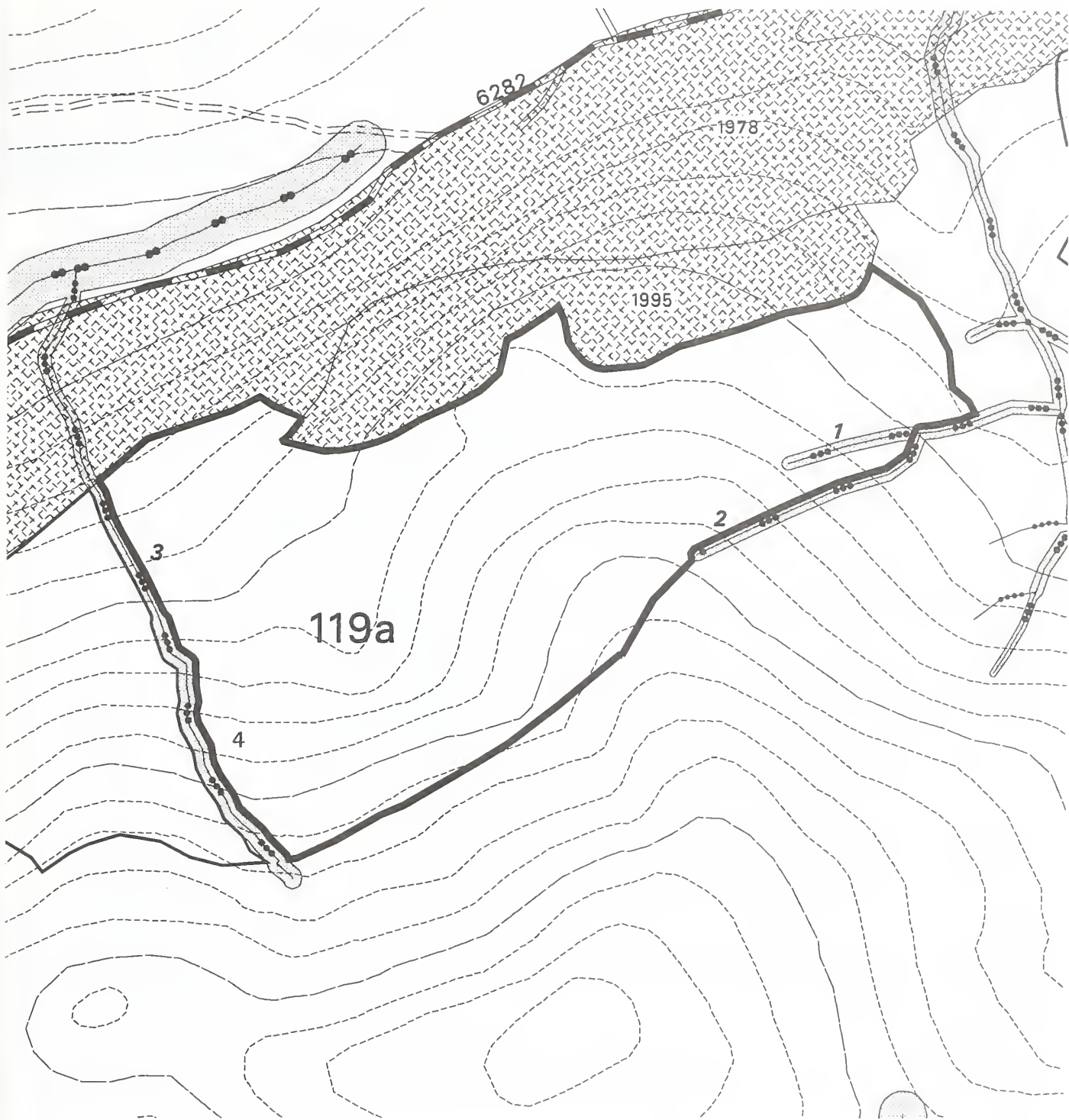
Mitigation: Retention of at least 50% of the stand will meet the Modification VQO.

Transportation

Concern: The unit is not accessible by road due to steep terrain.

Mitigation: Use helicopter to access the unit.

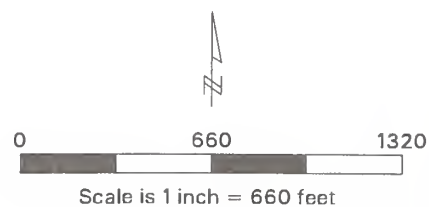
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	121	Unit Size :	33 acres
Aerial Photo:	1999 2398-26	Volume strata:	33 acres high
VCU:	452		0 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	210 mbf

Harvest Treatment: 75% retention, remove trees in 2-acre or less corridors

Logging/Transportation Systems: Cable yarding / Road 6282 and one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class I, Channel Type MC2
Stream 2 is Class III, Channel Type HC5

Mitigation: *Stream 1:* No commercial timber harvest within 100'. No programmed commercial timber harvest within the remainder of the Riparian Management Area, defined as the channel side-slope break. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).
Stream 2: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6, 12.6a, and 13.16.

Concern: A temporary road accesses the unit.

Mitigation: Close the temporary road and remove all drainage structures after harvest.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The proposed harvest treatment meets marten standards and guidelines throughout the unit.

Concern: The unit is adjacent to a beach buffer.

Mitigation: The unit boundary was adjusted to maintain a 1000' beach buffer.

Concern: The unit contains high value deer winter habitat.

Mitigation: Retention of 75% of the stand will maintain winter habitat of a slightly lower quality. The stand will recover to full value in 40 years.

Scenery

Concern: A portion of the unit is visible from Sumner Strait.

Mitigation: Retention of 75% of the stand will meet the Partial Retention VQO. Avoid corridors perpendicular to Road 6245.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees displaying windfirm characteristics will be favored for retention.

Recreation

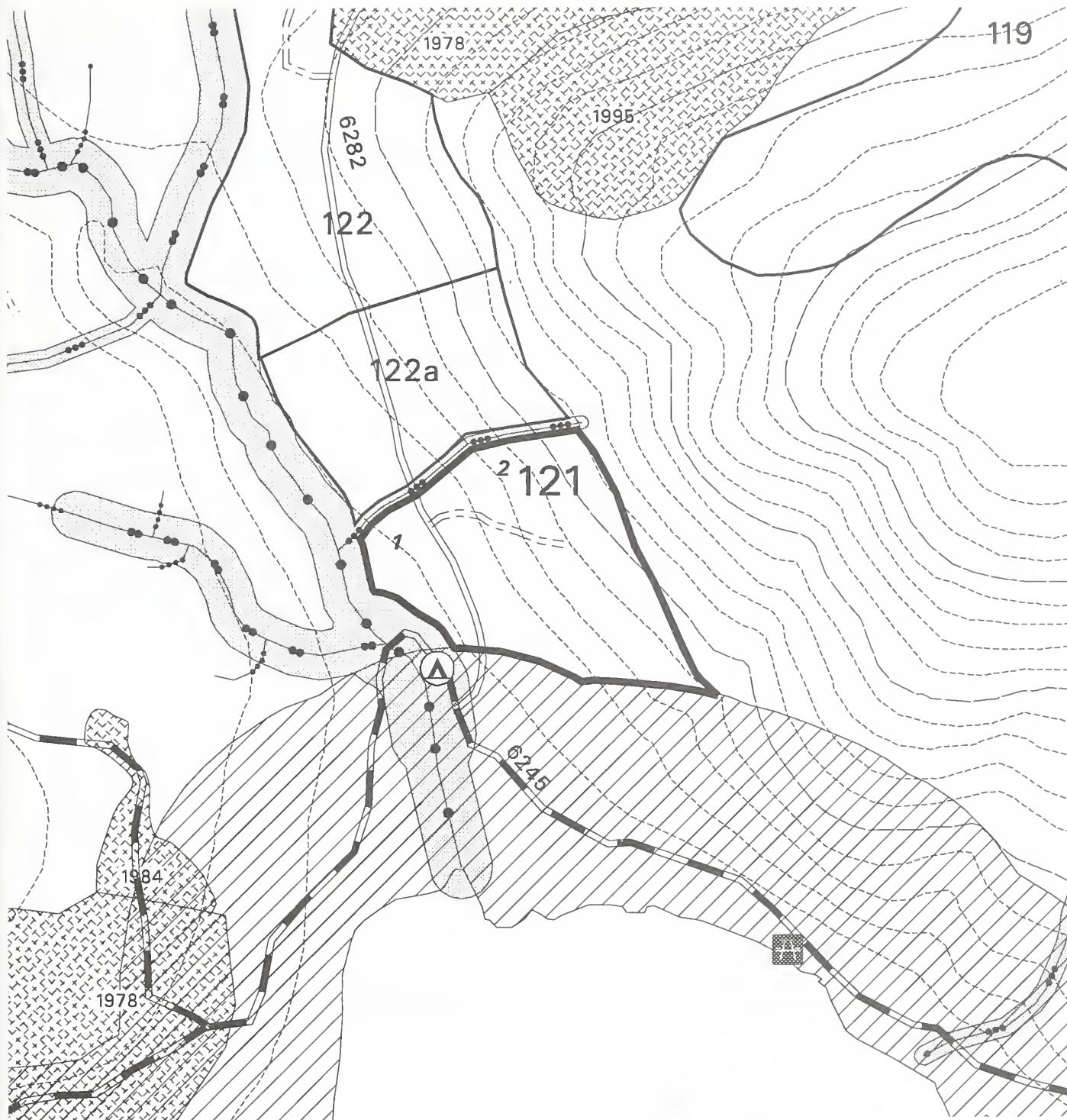
Concern: This unit may be partially visible from the proposed dispersed campsite/picnic area.

Mitigation: Retention of trees in the unit will lessen the visual impacts.

Transportation

Opportunity: An extension of Road 6282 accesses the unit. This extension will remain open as part of a loop road connection between Roads 6282 and 6245.

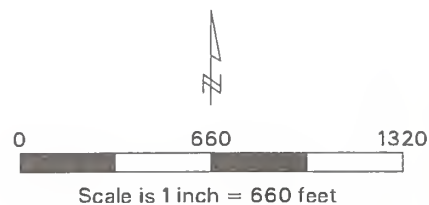
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	122	Unit Size :	33 acres
Aerial Photo:	1999 2398-26	Volume strata:	33 acres high
VCU:	452		0 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	350 mbf

Harvest Treatment: 75% retention, 2-acre or less corridors or V-shaped patches east of Road 6245. Remove trees in clumps or dispersed throughout the unit west of Road 6245.

Logging/Transportation Systems: Cable yarding / Road 6282 and one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class I, Channel Type MC2
Stream 2 is Class II, Channel Type MC1

Mitigation: No commercial timber harvest within 100'. No programmed commercial timber harvest within the remainder of the Riparian Management Area, defined as the channel side-slope break. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: A temporary road accesses the unit.

Mitigation: Close the temporary road and remove all drainage structures after harvest.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The proposed harvest treatment meets marten standards and guidelines throughout the unit.

Concern: The unit contains high value deer winter habitat.

Mitigation: Retention of 75% of the stand will maintain winter habitat of a slightly lower quality. The stand will recover to full value in 40 years.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees displaying windfirm characteristics will be favored for retention.

Transportation

Opportunity: An extension of Road 6282 accesses the unit. This extension will remain open as part of a loop road connection between Roads 6282 and 6245.

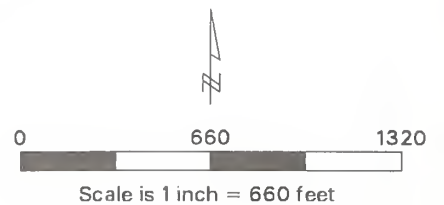
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	122a	Unit Size :	19 acres	
Aerial Photo:	1999 2398-26	Volume strata:	19	acres high
VCU:	452		0	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	No	Estimated timber volume:	200	mbf

Harvest Treatment: 75% retention, 2-acre or less corridors or V-shaped patches east of Road 6245. Remove trees in clumps or dispersed throughout the unit west of Road 6245.

Logging/Transportation Systems: Cable yarding / Road 6282

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC5

Stream 2 is Class I, Channel Type MC2

Mitigation: *Stream 1:* No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Stream 2: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, defined as the channel side-slope break. Apply BMPs 12.6, 12.6a, and 13.16.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The proposed harvest treatment meets marten standards and guidelines throughout the unit.

Concern: The unit contains high value deer winter habitat.

Mitigation: Retention of 75% of the stand will maintain winter habitat of a slightly lower quality. The stand will recover to full value in 40 years.

Scenery

Concern: A portion of the unit is visible from Sumner Strait.

Mitigation: Retention of 75% of the stand will meet the Partial Retention VQO.

Vegetation

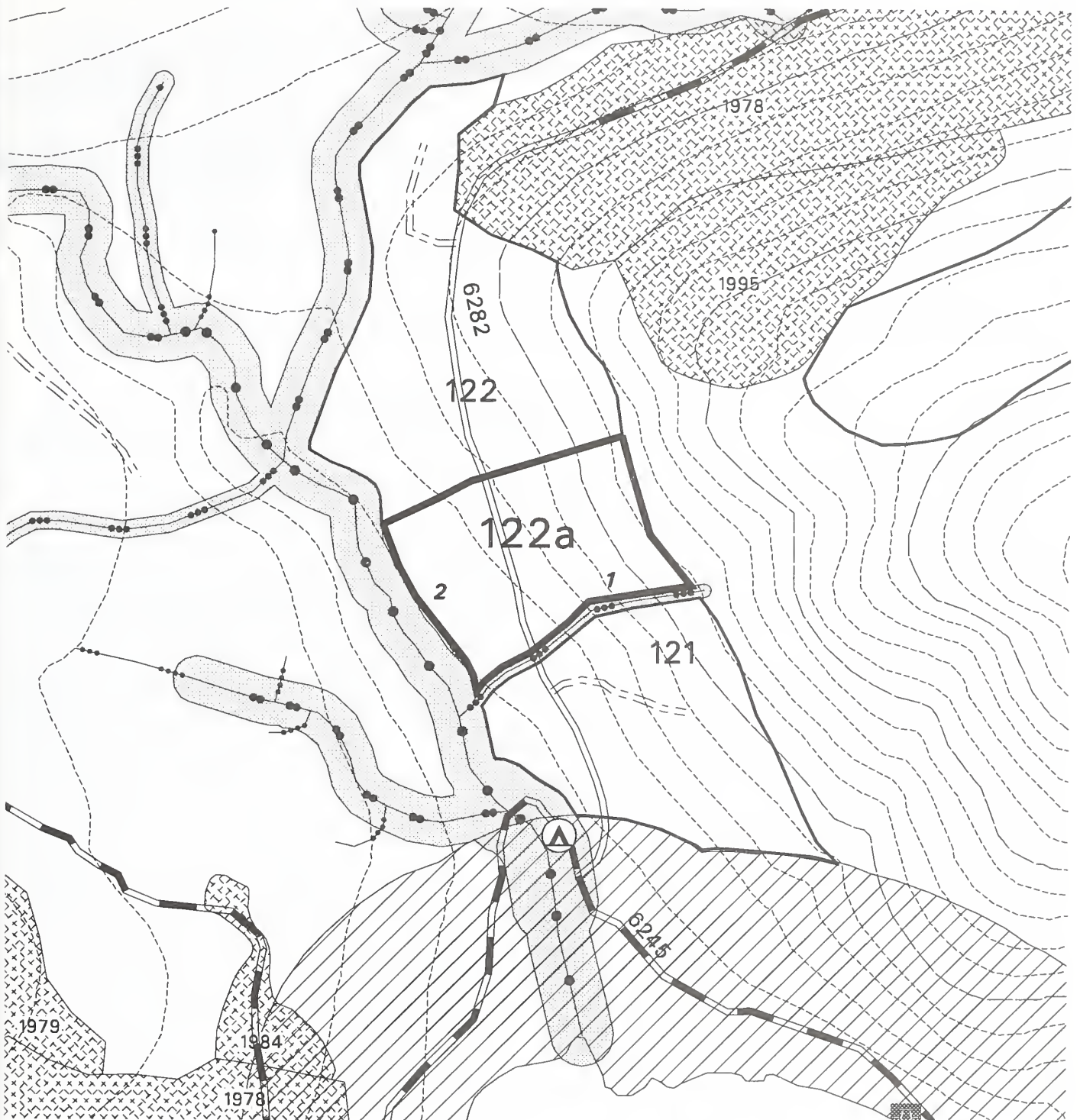
Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees displaying windfirm characteristics will be favored for retention.

Transportation

Opportunity: An extension of Road 6282 accesses the unit. This extension will remain open as part of a loop road connection between Roads 6282 and 6245.

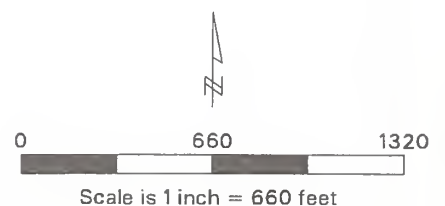
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	141	Unit Size :	7 acres	
Aerial Photo:	1998 1798-238	Volume strata:	7	acres high
VCU:	448		0	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	110	mbf

Harvest Treatment: 50-66% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Cable yarding / Road 6286 runs through the west part of the unit.

Resource Concerns & Mitigations

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Scenery

Concern: A portion of the unit is visible from Sumner Strait.

Mitigation: Retention of 20% of the stand and the unit size will meet the Partial Retention VQO.












Vegetation









Concern: Location makes the stand susceptible to potential windthrow.


Mitigation: Trees displaying windfirm characteristics will be favored for retention.

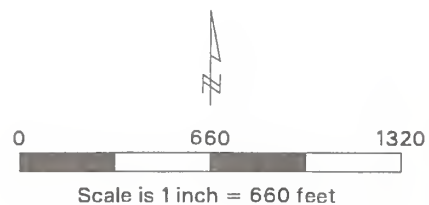
Selected Alternative



-  Existing Managed Stands
-  Riparian Management Area
-  Beach Buffer
-  Old-growth Reserves
-  Lakes
-  Proposed Unit Boundaries
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  AHMU-Class 4 Streams
-  Existing Classified Roads

-  Existing Closed Roads
-  Proposed Classified Roads
-  Proposed Temporary Roads
-  500-ft. Contour Interval
-  100-ft. Contour Interval
-  Stream Numbers
-  Proposed Dispersed Picnic Site
-  Proposed Dispersed Camp Site

-  Existing Picnic Site
-  Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	148	Unit Size :	12 acres
Aerial Photo:	1998 1798-237	Volume strata:	0 acres high
VCU:	452		12 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	90 mbf

Harvest Treatment: 20-30% retention, leave scattered trees

Logging/Transportation Systems: Cable yarding /one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: A temporary road provides access to this unit from Road 40003.

Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows.

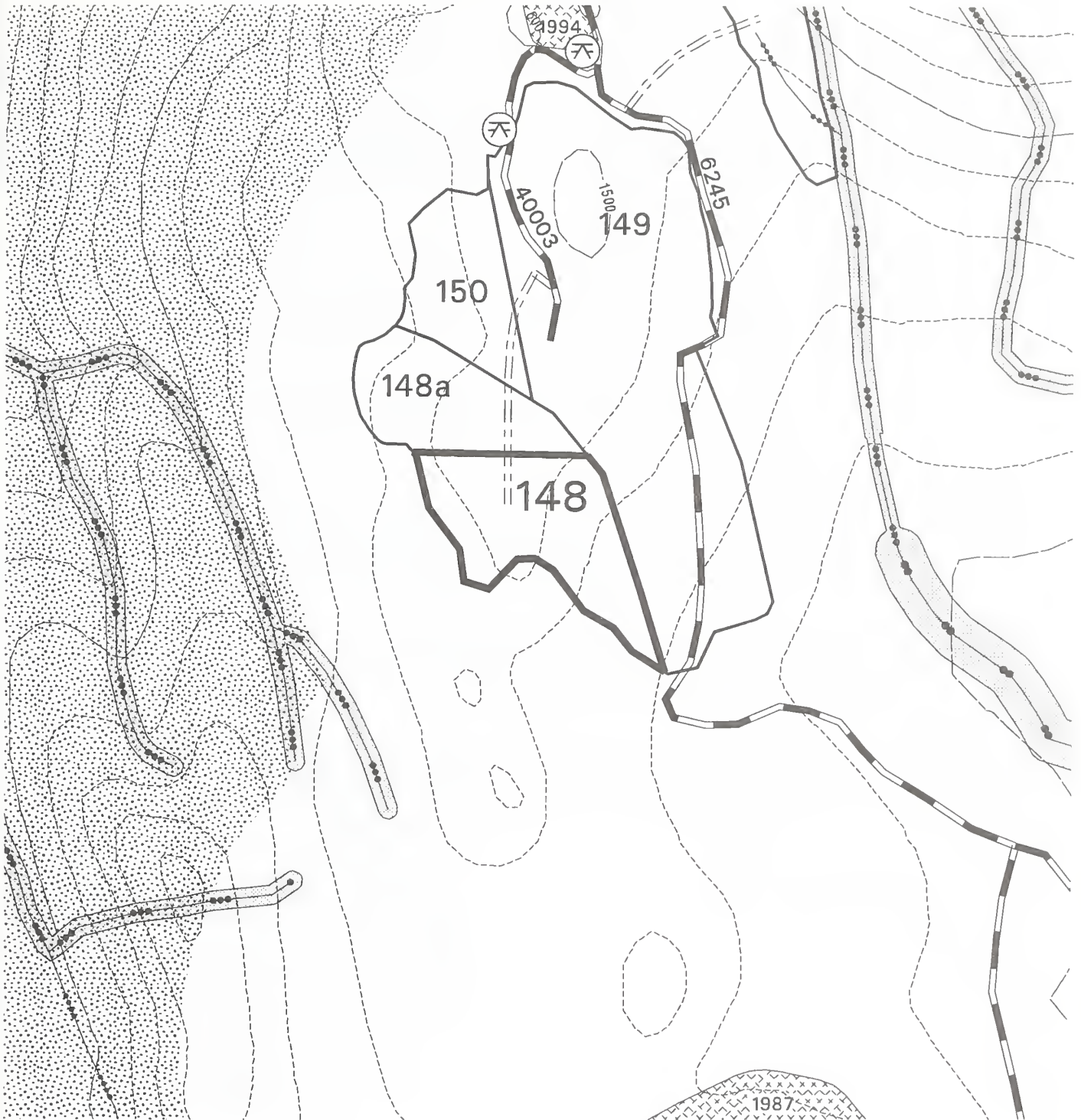
Mitigation: Retention of 20% of the stand and the unit size (when combined with Unit 150) will meet the Partial Retention VQO.



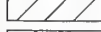








Vegetation









Concern: Location makes the stand susceptible to potential windthrow.



Mitigation: Retain a 100-foot windfirm buffer of approximately 25 dispersed small diameter trees on the eastern half of the northern boundary. Select trees with windfirm characteristics and make the unit boundary irregular in shape. The western boundary will be adjacent to a muskeg.

Selected Alternative



-  Existing Managed Stands
-  Riparian Management Area
-  Beach Buffer
-  Old-growth Reserves
-  Lakes
-  Proposed Unit Boundaries
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  AHMU-Class 4 Streams
-  Existing Classified Roads

-  Existing Closed Roads
-  Proposed Classified Roads
-  Proposed Temporary Roads
-  500-ft. Contour Interval
-  100-ft. Contour Interval
-  Stream Numbers
-  Proposed Dispersed Picnic Site
-  Proposed Dispersed Camp Site

-  Existing Picnic Site
-  Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	148a	Unit Size :	8 acres	
Aerial Photo:	1998 1798-237	Volume strata:	8	acres high
VCU:	452		0	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	No	Estimated timber volume:	40	mbf

Harvest Treatment: 75% retention, remove trees in clumps or dispersed throughout the unit

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: A temporary road provides access to this unit from Road 40003.

Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows.

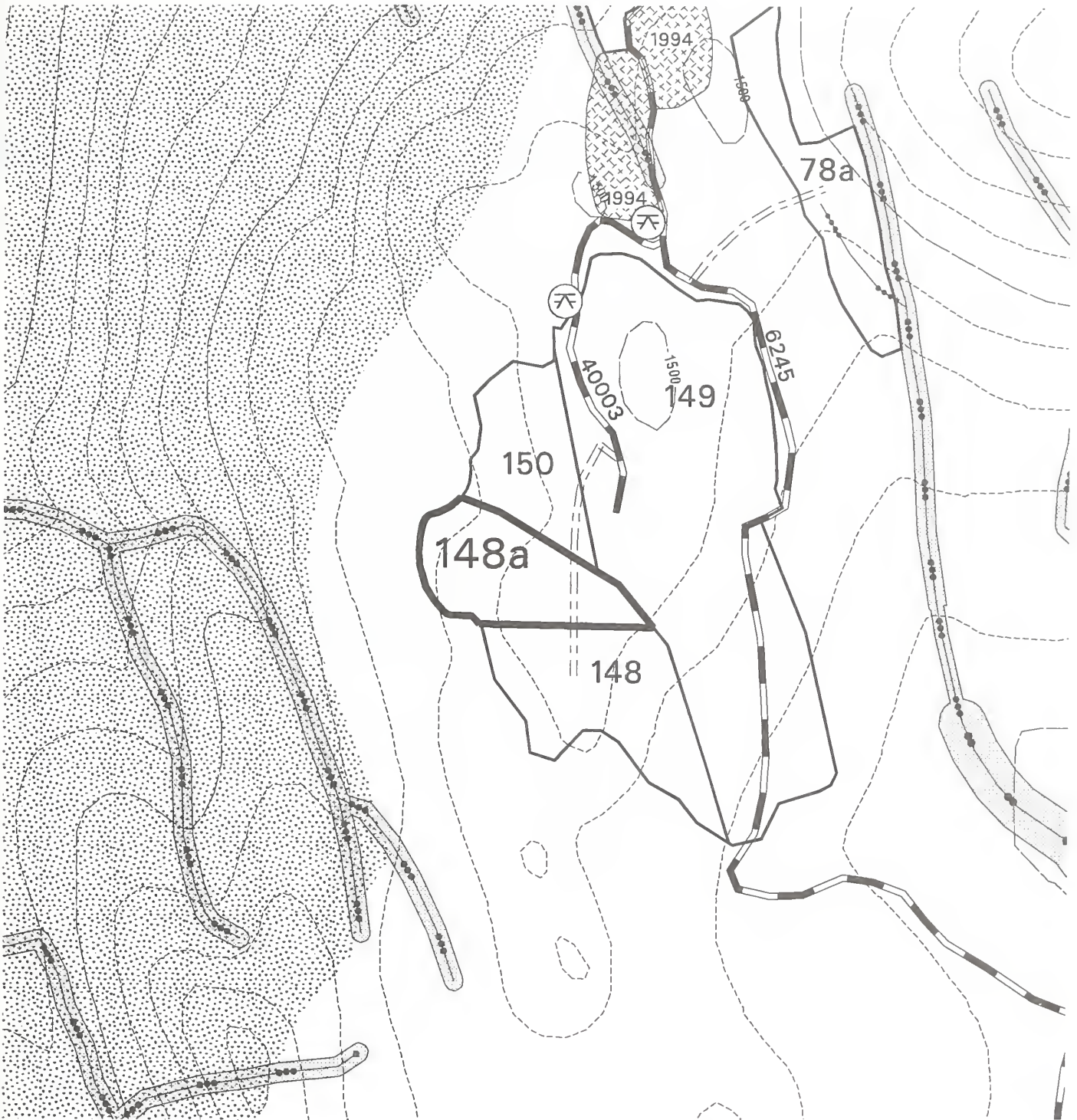
Mitigation: Retention of 20% of the stand and the unit size will meet the Retention VQO.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees displaying windfirm characteristics will be favored for retention.

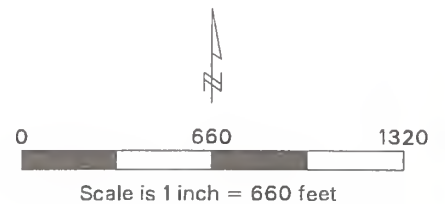
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	149	Unit Size :	42 acres	
Aerial Photo:	1998 1798-237	Volume strata:	0	acres high
VCU:	448		39	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	No	Estimated timber volume:	480	mbf

Harvest Treatment: 50-66% retention, remove trees in 3 acre or less corridors

Logging/Transportation Systems: Cable yarding / Roads 6245 and 40003.

Resource Concerns & Mitigations

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

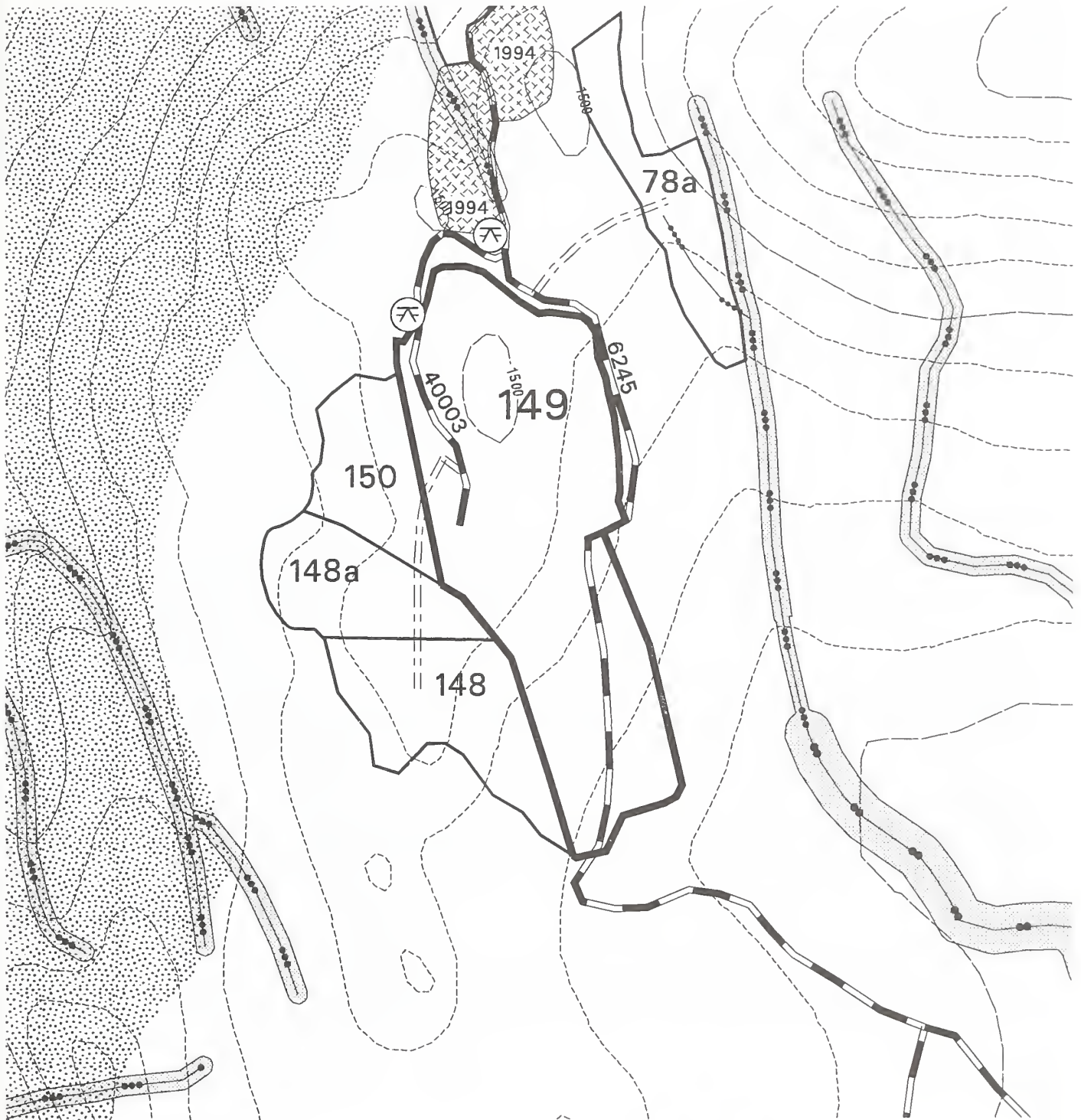
Mitigation: Trees displaying windfirm characteristics will be favored for retention.

Recreation

Concern: This unit may be partially visible from the proposed trail and picnic area.

Mitigation: Retention of trees in the unit will lessen the visual impacts.

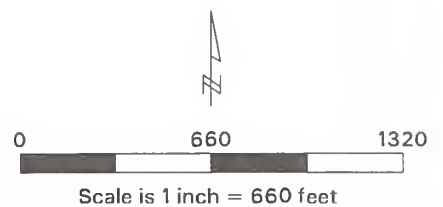
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	150	Unit Size :	8	acres
Aerial Photo:	1998 1798-237	Volume strata:	0	acres high
VCU:	448		8	acres medium
Land Use Designation:	Scenic Viewshed			
Within Inventoried Roadless Area?	No	Estimated timber volume:	20	mbf

Harvest Treatment: 75% retention, remove trees dispersed throughout the unit

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: A temporary road provides access to this unit from Road 40003.

Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Scenery

Concern: A portion of the unit is visible from Wrangell Narrows.

Mitigation: Retention of 20% of the stand and the unit size (when combined with Unit 148a) will meet the Retention VQO.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

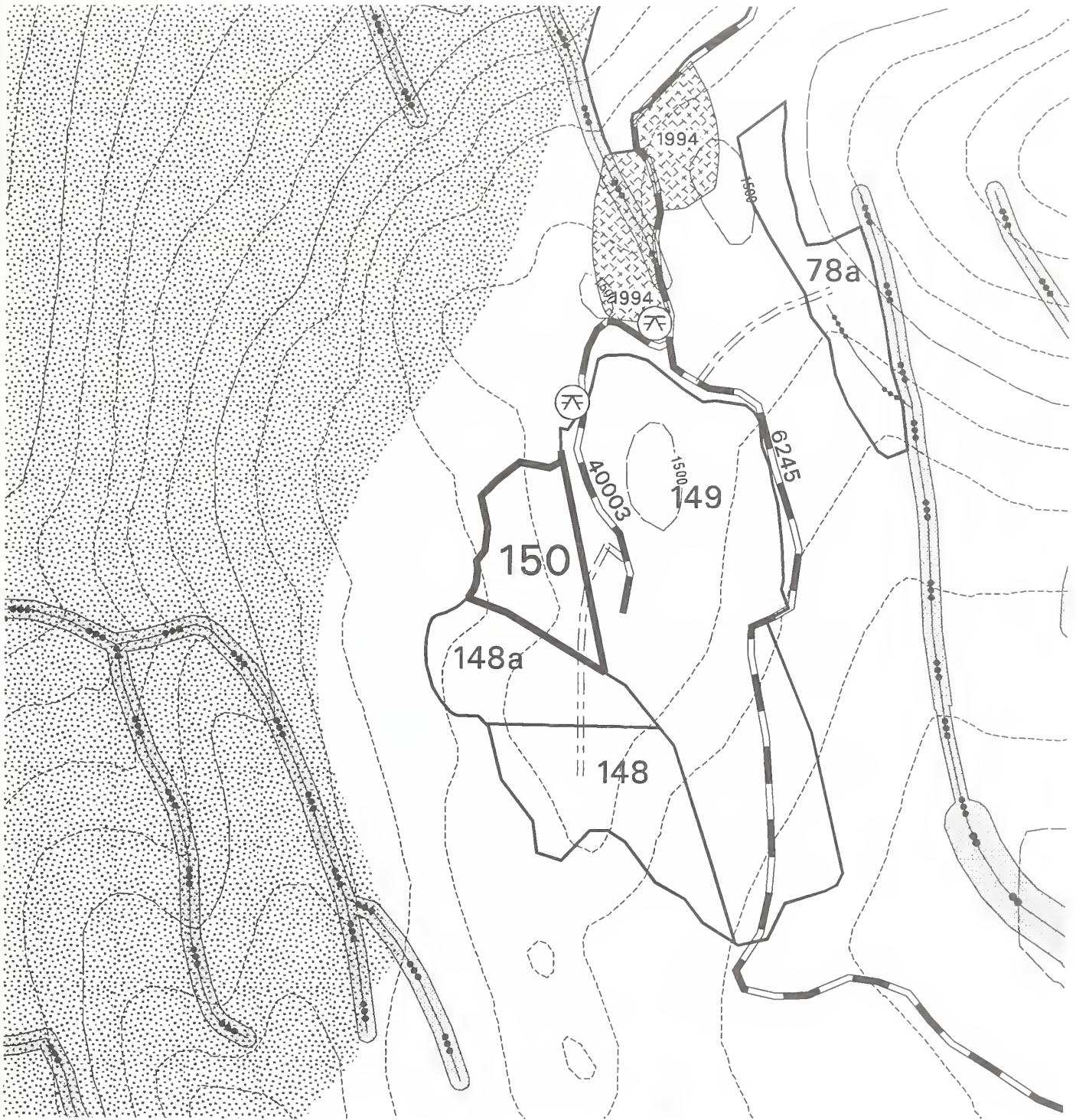
Mitigation: Trees with decay or dwarf mistletoe will be favored for removal.

Recreation

Concern: This unit may be partially visible from the future trail and picnic site.

Mitigation: Retention of trees in the unit will lessen the visual impacts.

Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	161a	Unit Size :	21 acres
Aerial Photo:	1998 2198-25	Volume strata:	20 acres high
VCU:	452		1 acres medium
Land Use Designation:	Scenic Viewshed		
Within Inventoried Roadless Area?	No	Estimated timber volume:	150 mbf

Harvest Treatment: 75% retention, remove trees in clumps or scattered throughout the unit

Logging/Transportation Systems: Shovel yarding / one temporary road

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: A temporary road provides access to this unit from Road 6245.

Mitigation: After harvest, remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil.

Wildlife

Concern: The unit contains high value marten habitat.

Mitigation: The harvest treatment meets marten standards and guidelines throughout the unit.

Concern: The unit is adjacent to a beach buffer and the South Blind Slough Old-growth Reserve.

Mitigation: The unit boundary was adjusted to maintain a 1000' beach buffer and to avoid the Old-growth Reserve.

Concern: The unit contains high value deer winter habitat.

Mitigation: Retention of 50% of the stand will maintain winter habitat of a slightly lower quality. The stand will recover to full value in 40 years.

Scenery

Concern: Most of the unit is visible from South Blind Slough.

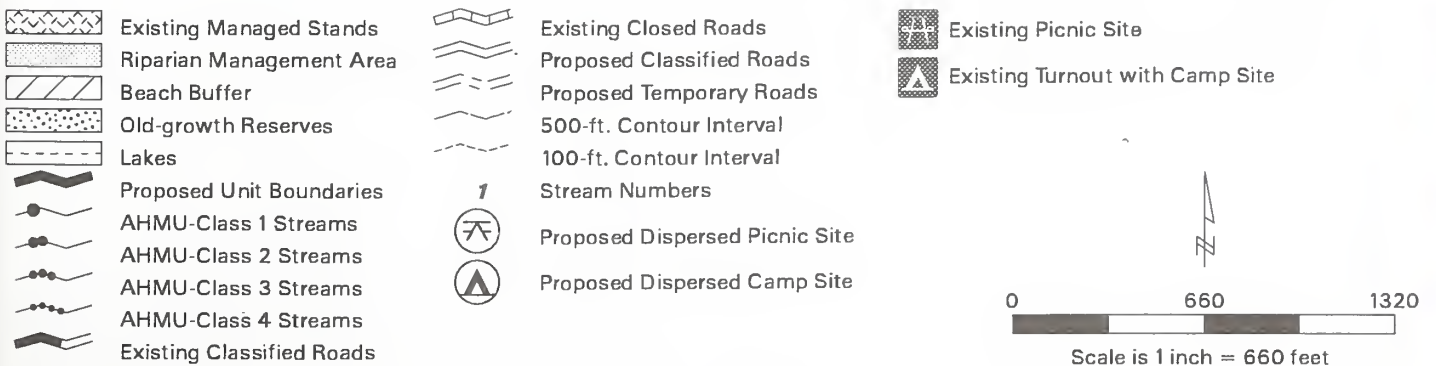
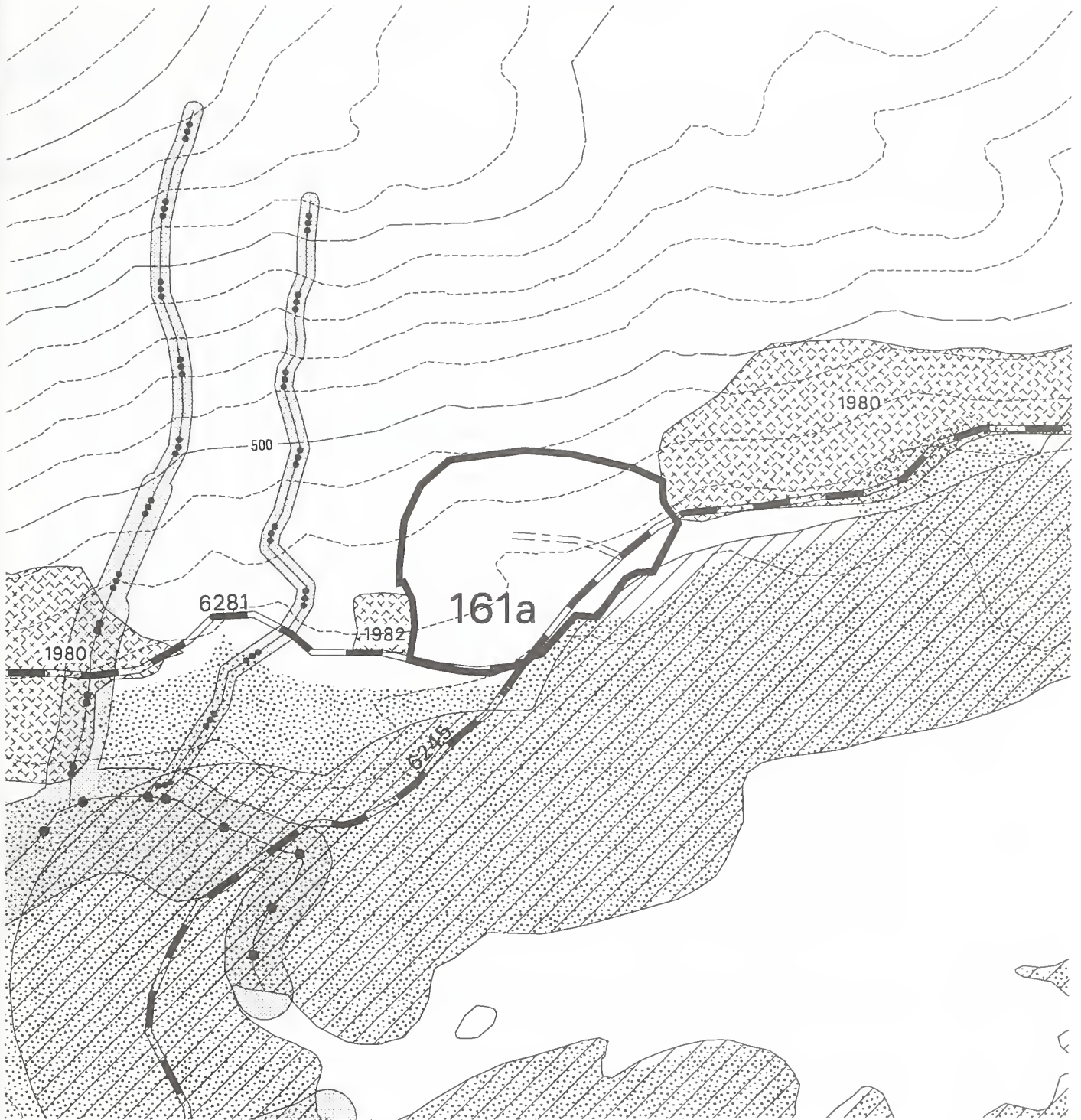
Mitigation: Retention of 75% of the stand, the size of the unit, and screening from the small island in South Blind Slough will meet the Partial Retention VQO.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees with decay or dwarf mistletoe will be favored for removal.

Selected Alternative



Woodpecker Project Area Unit Card Narrative

Unit #:	166a	Unit Size :	14 acres	
Aerial Photo:	1998 2198-23	Volume strata:	6	acres high
VCU:	452		6	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	110	mbf

Harvest Treatment: 50-66% retention, remove trees in clumps or dispersed throughout the unit

Logging/Transportation Systems: Shovel yarding / one temporary road and Road 6280

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class II, Channel Type MC2

Mitigation: No commercial timber harvest within 100'. No programmed commercial timber harvest within the remainder of the Riparian Management Area, defined as the channel side-slope break. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection). Prevent in-stream disturbance from road construction over stream. Apply BMP 14.6 (Timing Restrictions for Construction Activities) for road construction over fish streams.

Concern: A temporary road provides access to this unit from Road 6280. Road 6280 is presently closed to traffic due to alder growth on the roadway, and will be reopened for timber harvest. The temporary road crosses a Class II stream.

Mitigation: After harvest, close Road 6280, remove drainage structures and add waterbars as needed. Remove all drainage structures from the temporary road to restore natural drainage patterns. Add additional waterbars as needed, and grass seed all areas of exposed soil. Apply BMP 14.6 for in-stream construction (installation and removal of culvert).

Wildlife

Concern: The south block of the unit contains high value marten habitat.

Mitigation: The harvest treatment will meet marten standards and guidelines throughout the unit.

Concern: The unit is adjacent to a beach buffer.

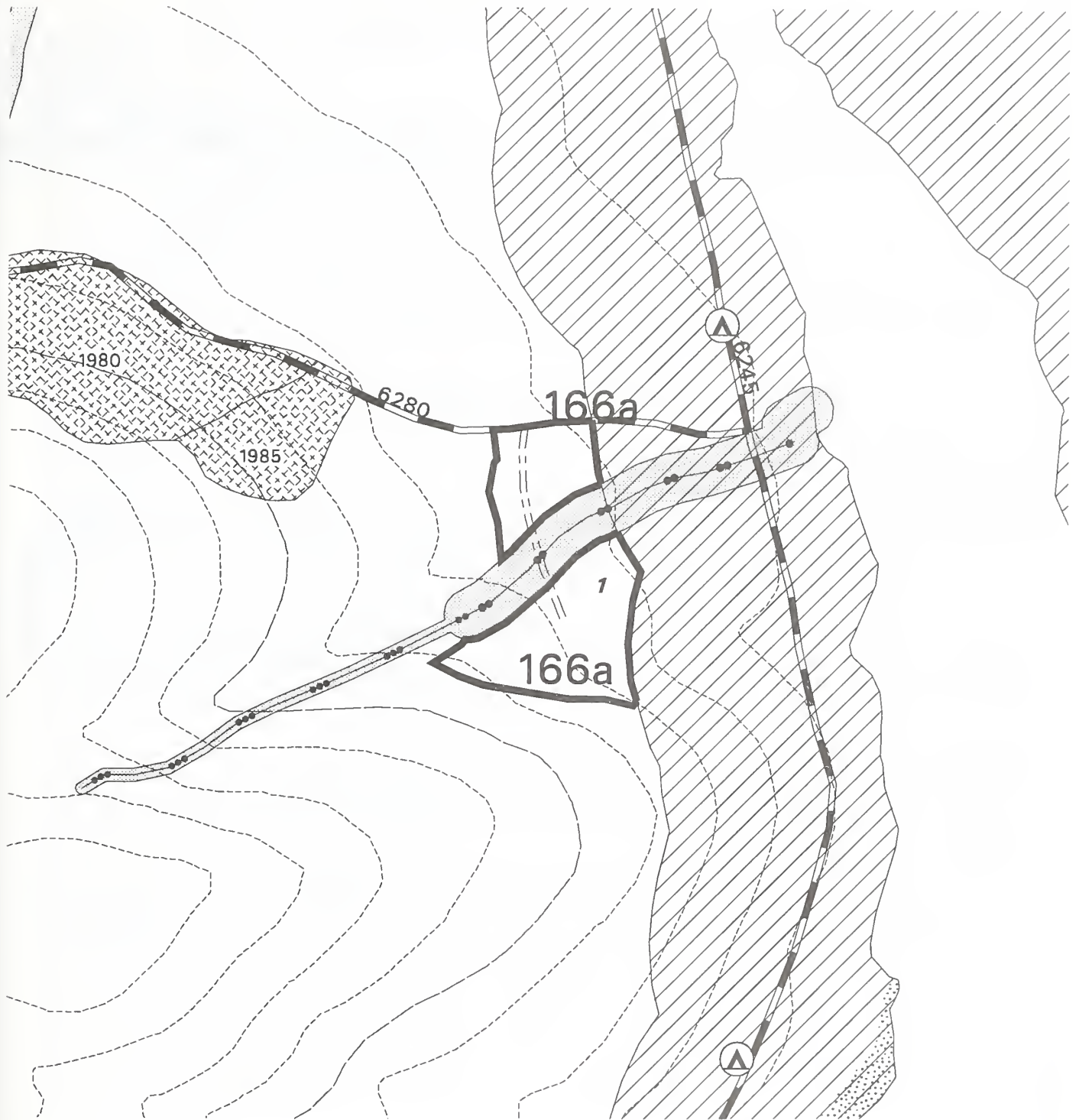
Mitigation: The unit boundaries were adjusted to maintain a 1000' beach buffer.

Scenery

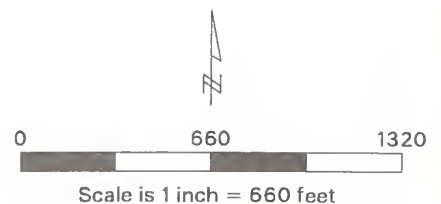
Concern: Most of the unit is visible from South Blind Slough.

Mitigation: Retention of at least 20 % of the stand, the unit size, and screening from the small island in the foreground will meet the Partial Retention VQO.

Selected Alternative



-
- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads
- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Existing Picnic Site
- Existing Turnout with Camp Site
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site
- 0 660
- Scale is 1 inch = 660 feet



Woodpecker Project Area Unit Card Narrative

Unit #:	174	Unit Size :	13 acres	
Aerial Photo:	1999 2398-154	Volume strata:	13	acres high
VCU:	452		0	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	300	mbf

Harvest Treatment: 20-30% retention, leave trees in clumps or corridors

Logging/Transportation Systems: Cable yarding / Road 6280

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Stream 1 is Class III, Channel Type HC1.

Mitigation: No commercial timber harvest within the Riparian Management Area, defined as the V-notch. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16 (Stream Channel Protection).

Concern: Road 6280 serves as the lower unit boundary. Road 6280 is presently closed to traffic due to alder growth on the roadway, and will be reopened for timber harvest.

Mitigation: After harvest, close Road 6280, remove all drainage structures, and add waterbars as needed.

Wildlife

Concern: The unit contains high value marten habitat.

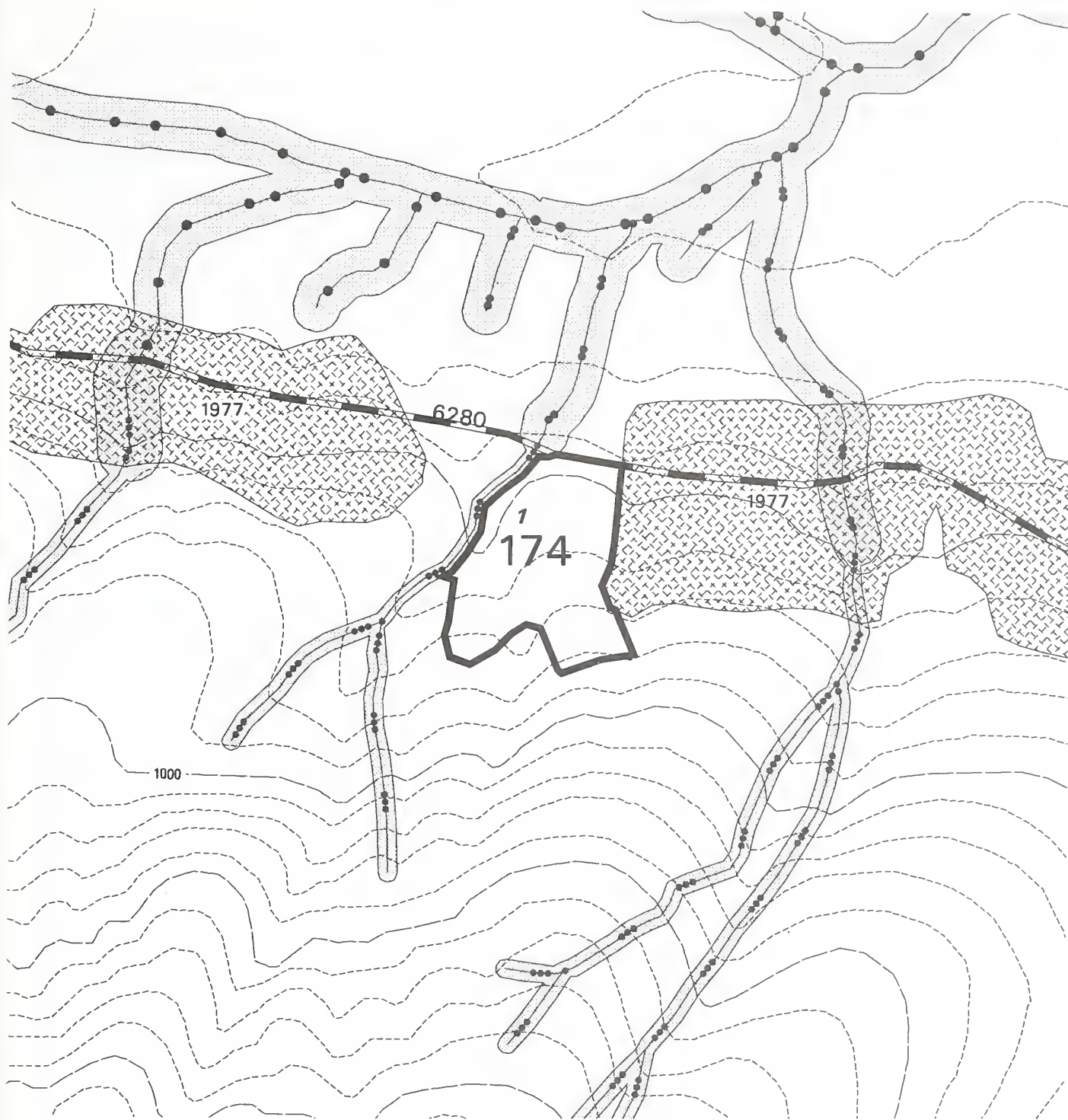
Mitigation: The harvest treatment will meet marten standards and guidelines throughout the unit.

Scenery

Concern: The unit is visible in the background from Crystal Mountain.

Mitigation: Retention of at least 20 % of the stand and the unit size will meet the Partial Retention VQO.

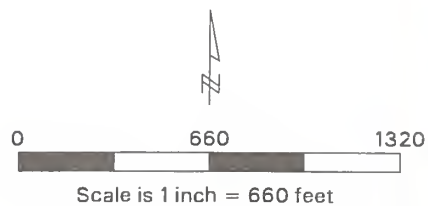
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site



Woodpecker Project Area Unit Card Narrative

Unit #:	187	Unit Size :	5 acres	
Aerial Photo:	1999 2398-152	Volume strata:	0	acres high
VCU:	452		5	acres medium
Land Use Designation:	Modified Landscape			
Within Inventoried Roadless Area?	No	Estimated timber volume:	70	mbf

Harvest Treatment: 20-30% retention, leave trees scattered or in clumps

Logging/Transportation Systems: Cable yarding / Road 6246 serves as the upper unit boundary.

Resource Concerns & Mitigations

Watershed/Fisheries

Concern: Streams 1 and 2 are Class IV, Channel Type HC0.
Stream 3 is Class II, Channel Type HC6

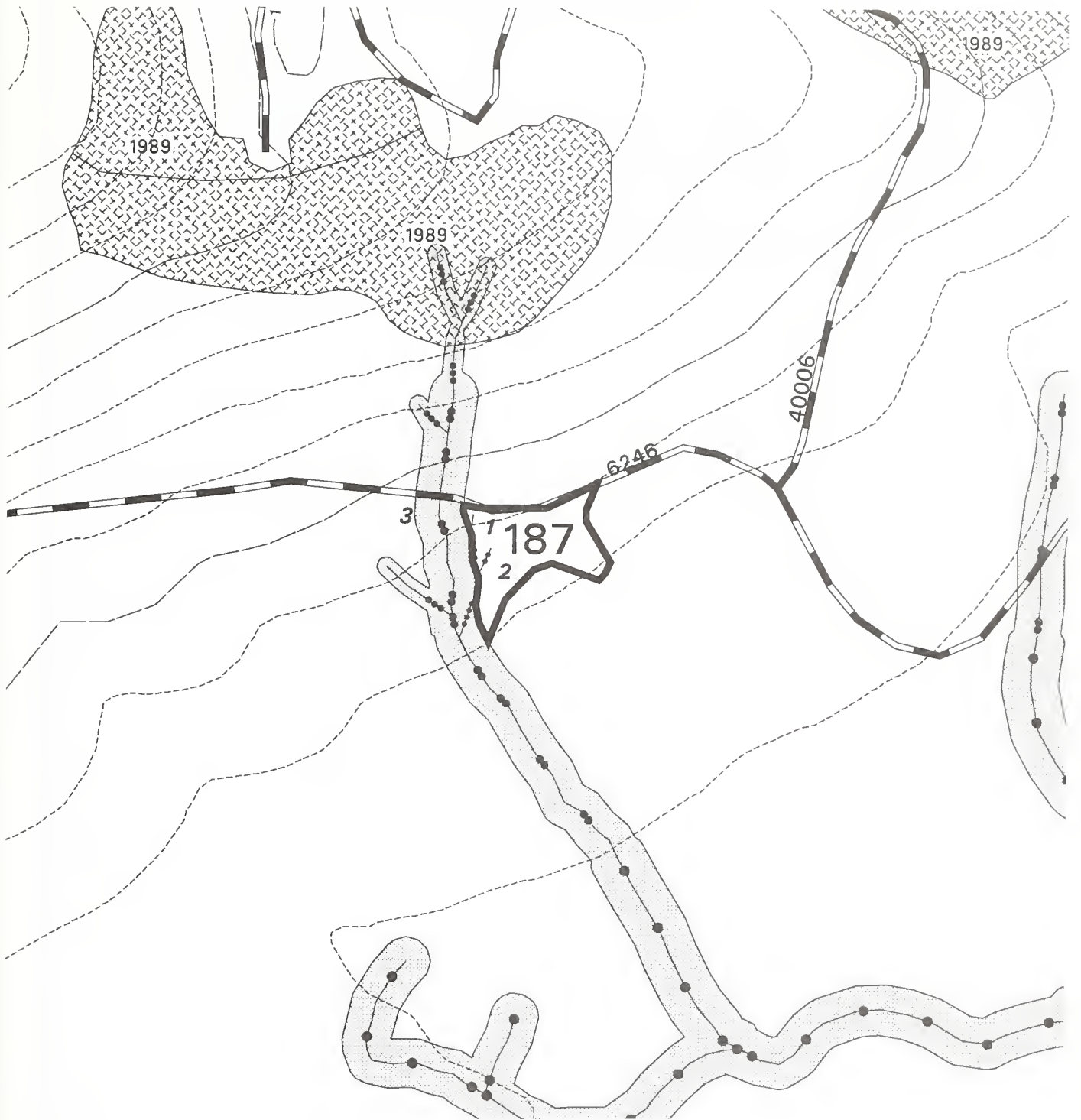
Mitigation: *Streams 1 and 2:* Apply BMP 13.16 (Stream Channel Protection). Use partial suspension and split line yarding where feasible.
Stream 3: No commercial timber harvest within 100'. No programmed commercial timber harvest within the Riparian Management Area, or 100'. Apply BMPs 12.6 (Riparian Area Designation and Protection), 12.6a (Buffer Design and Layout), and 13.16.

Vegetation

Concern: Location makes the stand susceptible to potential windthrow.

Mitigation: Trees with decay or dwarf mistletoe will be selected for removal. A windfirm buffer will be located along the Class II stream on the western boundary.

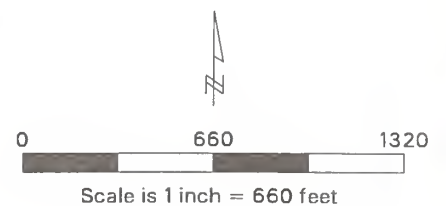
Selected Alternative



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Old-growth Reserves
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams
- AHMU-Class 4 Streams
- Existing Classified Roads

- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval
- Stream Numbers
- Proposed Dispersed Picnic Site
- Proposed Dispersed Camp Site

- Existing Picnic Site
- Existing Turnout with Camp Site





Road Cards for Selected Alternative

Road Management Objectives

Purpose and Use

The road management objectives (RMOs) presented in this appendix establish the intended purpose, and display design, maintenance, and operation criteria (as per FSH 7709.55), for each National Forest System road in the Woodpecker Project Area. The information on the RMO form is part of a permanent database that can be updated periodically as access needs, issues, and budgets change. Proposed new roads and existing roads with planned reconstruction or maintenance have a second section with site specific design criteria that will be used during design, construction, and initial monitoring of any road work proposed in this document. For proposed new roads, a map is also included showing the proposed road location and identification of areas discussed in the site-specific design criteria. The map that follows this discussion shows existing and proposed road locations for the Woodpecker Project Area.

General Design Criteria

The general design criteria provide various descriptions of the type of road, and the intended purpose and future use of the road. From this information, the maintenance and operation criteria can be developed. This information is critical for determining whether a Corps of Engineer's permit will be required for segments of road crossing wetlands. Roads built solely for silvicultural purposes do not require these permits.

Maintenance Criteria

The maintenance criteria include a discussion of how the road is to be maintained, centering on three strategies:

- **Active:** provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush to maintain sight distance. Grade as needed to maintain crown and running surface.
- **Storm Proof:** provide water bars, rolling dips, out sloping, etc., to assure controlled runoff until any needed maintenance can be performed on the primary drainage system. Control roadside brush to maintain passage.
- **Storage:** remove or bypass all drainage structures to restore natural drainage patterns, add water bars as needed to control runoff, revegetate.

The **active** maintenance strategy is applied to roads open and maintained for travel by a prudent driver in a standard passenger car. User comfort and convenience are not considered priorities. These roads are assigned Maintenance Level 3. The active maintenance strategy will also at times be applied to roads intended only for use by high clearance vehicles, or

Maintenance Level 2 roads. This will usually be the case when log haul is expected in the near future.

An intermediate maintenance strategy is to **storm proof**, or stabilize, the road by providing roadway features such as drivable water bars, and out sloping to control runoff in case the primary drainage system of culverts and ditches is overwhelmed during a storm event. Each culvert will be evaluated as to where the water would go if the culvert were to fail to carry the high flow. A water bar or out slope at this location will minimize the potential of erosion of long stretches of ditch line or roadway. This is intended to be the primary maintenance strategy applied to roads assigned Maintenance Level 2.

Storage is intended to be the primary maintenance strategy on intermittent use roads during their closure cycle. Road Storage is defined in FSH 5409.17 as “the process/action of closing a road to vehicle traffic and placing it in a condition that requires minimum maintenance to protect the environment and preserve the facility for future use”. In this strategy, bridges and culverts on live streams are completely removed to restore natural drainage patterns. Cross drains and ditch relief culverts will be bypassed with deep water bars but may be left in place to minimize the cost of re-using these roads in the future. Roads in storage are left in a self-maintaining state in order to use more road maintenance funds on the open drivable roads on the island. Maintenance Level 1, closure and basic custodial maintenance, is assigned.

The interdisciplinary team went through a process to define road management considerations, leading to a maintenance strategy to be applied to each road in the Woodpecker Project Area. The map on the facing page shows the desired future condition of each road in the project area as a result of the process. The work needed to meet the objectives can be accomplished on the roads along the haul route in these timber sales. Work needed on other roads to meet the desired objective will be scheduled as funding allows.

Operation Criteria

The operation criteria include a presentation of each of the five traffic management strategies identified in FSM 7731 (encourage, accept, discourage, prohibit, and eliminate) to be applied to different traffic classes on each road. The traffic management narrative describes what actions will be taken in order to apply each strategy. For example, if the strategy “eliminate” is prescribed for standard passenger and high clearance vehicles, the narrative describes the method to accomplish this, such as removal of stream crossing structures, gating, etc.



Woodpecker Project Area

Road Management Objectives Maintenance Strategy

LEGEND

- Closed Roads in Storage
- Stormproofed, High Clearance Road
- Active Maintenance, All Vehicle Road
- Project Area Boundary
- Streams
- 500ft Contours
- Non-National Forest System Lands
- Lakes/Saltwater



Site Specific Design Criteria

The site-specific design criteria include road location objectives, wetland information, erosion control, proposed rock borrow sources and all streams within the project area with proposed construction or rehabilitation of stream crossing structures. The road location discussion documents why the road is proposed in a specific location, control points, and alternative routes considered (if any). A main location objective is to avoid crossing wetlands. At times, however, it is necessary to cross wetlands in order to minimize the total impact of a road. These areas are discussed, documenting areas of mapped wetlands and why the road is located across these areas. All fish streams are identified, as well as non-fish streams with sufficient flow to require a 48" or larger culvert. The stream crossing information describes the stream in enough detail to lead to a preliminary crossing structure recommendation and to evaluate the adequacy of the proposed structure.

GLOSSARY for RMO FORM VALUES:

Project	The name of the project or NEPA document that addresses the environmental impacts of this road.
Land Use Designation	SV = Scenic Viewshed; ML = Modified Landscape SA = Special Interest Area; OG = Old-growth Habitat Reserve TP = Timber Production
Route Number	Normally only long-term Forest Development Roads are assigned road numbers.
Route Name	All long-term roads assigned numbers will be given names.
Termini	The beginning and ending location of the road.
Length (miles)	Best estimate of the length of road.
Functional Class	Arterial (A) = primary; Collector (C) = secondary; or Local (L) = tertiary.
Service Life	Short-term (less than 10 years) or Long-term. Long-term used in conjunction with Entry Cycle to be Long-term Constant (LC) or Long-term Intermittent (LI).
Width (ft)	Travelway width of road. Normal values are 14 ft and 16ft.
Design Speed (mph)	10, 20, or 30 mph.
Critical Vehicle	The largest vehicle (by weight, size or unique shape) whose limited use on the road is necessary to complete the planned activity.
Design Vehicle	The vehicle frequently using the road that determines the minimum standard for a particular design element - passenger car, pick-up, logging truck, lowboy, rock truck, or yarding equipment.
Intended Purpose	Brief description of why this road is needed.
Maintenance Levels	Levels 1 through 5:
<ul style="list-style-type: none"> • Operational (Current Condition) • Objective (Desired Future Condition) 	Level 1 - Closed, basic drainage maintenance Level 2 - High Clearance Vehicles Level 3 - All Vehicles, low user comfort Level 4 - All Vehicles, moderate user comfort Level 5 - All Vehicles, high user comfort
Alaska Forest Practices Act	Road status as specified by the Alaska Forest Resources and Practices Regulations, 1993; either Active, Inactive, or Closed.
Highway Safety Act	Road open to general public without restrictive gates, prohibitive signs, or regulation other than restrictions based on size, weight, or class of registration; Yes or No.
Travel Management Strategy	Several values apply; see the Travelway Classification/Operation Guide. Lists classes of traffic which will be encouraged, accepted, discouraged, prohibited, or eliminated.

Road Management Objective

Project		System	Land Use Designation
Woodpecker		Mitkof	SA, OG, ML, SV
Route No.	Route Name	Begin Termini	End Termini
6245	Woodpecker	MP 20.5 Mitkof Hwy	MP 18.4
Begin MP	Length	Status	Map Quarter Quad
0.0	18.4	Existing	PSG C-3
Photo year, roll, photos			
'98 1798-233, 235, 237, 2198-14-27,33, 2098-153, '99 2398-25-27, 2398-92, 2398-96			

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Collector	LC	Crushed gravel/shot rock	16'	20	Lowboy	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain open to all traffic. Provides access to Ohmer Creek Loop Trail at milepost 0.1.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	18.4	3 (open to standard passenger vehicles)	3	Active

Maintenance Narrative

Active: Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush, grade as needed to maintain crown and running surface.

Operation Criteria

Highway Safety Act:	Yes	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: N/A Accept: All vehicles, ATVs Discourage: N/A Prohibit: N/A Eliminate: N/A		

Travel Management Narrative

Public travel on this road occurs year round when snow conditions permit. Receives high use during deer and moose hunting seasons in the fall, used for firewood access, berry picking, sightseeing from May through November. Crushed gravel surfacing currently to milepost 7, continue crushed gravel to junction of Road 40003 at milepost 15.3.

Approved


 District Ranger

7-20-01

Date

Road Management Objectives

Site Specific Design Criteria Road 6245

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8). A small roadside slide occurred in October 1999 on this road near milepost 15. The road is currently closed at the location of the slide. During 2000, the slide area was surveyed to determine the cause and prepare a plan for reconstructing the road through the area. The contract to repair the road is in progress.

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

STREAM CROSSINGS: There are five sites that were identified in the road condition survey where AHMU Class II fish passage was identified as a concern. Refer to the Mitkof Island Road Analysis for further information on individual sites. Further field data is needed to identify the extent and nature of any problems. The locations, existing structures, possible barriers at each site, amount of upstream fish habitat, and fish presence are listed below:

Location	Existing Structures	Fish and Fish Habitat
MP <u>1.256</u> AHMU II Channel Type <u>HC</u>	36" CMP, 2.8' perch, 4.6% culvert gradient, no timing required	210 m ² habitat, cutthroat upstream and downstream
MP <u>1.503</u> AHMU II Channel Type <u>HC</u>	2-36" CMPs, 2' perch, 4.6% culvert gradient, no timing required	555 m ² habitat, cutthroat and Dolly Varden upstream and downstream
MP <u>4.962</u> AHMU II Channel Type <u>HC</u>	36" CMP, 2.9' perch, 4.6% culvert gradient, no timing required	555 m ² habitat, cutthroat and Dolly Varden upstream and downstream
MP <u>7.052</u> AHMU II Channel Type <u>HC</u>	48" CMP 3.3% culvert gradient, no timing required	30 m ² habitat, cutthroat upstream and downstream
MP <u>8.562</u> AHMU II Channel Type <u>HC</u>	48" CMP 2.8' perch, 6.7% culvert gradient, no timing required	251 m ² habitat, cutthroat upstream and downstream

The sites listed above are included in a contract to replace or repair the structures to provide fish passage, with the exception of the site at milepost 7.052. This site was given a lower priority than other sites on the island that have more upstream habitat. At this time, the available funding will be used to repair the higher priority sites.

Road Management Objective

Project Woodpecker		System Mitkof	Land Use Designation SA, OG, ML
Route No. 6246	Route Name West Fork Ohmer Creek	Begin Termini MP 0.8 Rd 6245	End Termini MP 2.81
Begin MP 0.0	Length 2.81	Status Existing	Map Quarter Quad PSG C-3
Photo year, roll, photos '98 2098-154, 2198-19-20			

General Design Criteria and Elements

Functional Class Local	Service Life LC	Surface Crushed gravel/shot rock	Width 14'	Design Speed 10	Critical Vehicle Lowboy	Design Vehicle Logging Truck
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Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain open to all vehicles to MP 1.50. Beyond this point the road will be open to high clearance vehicles. Provides access to Ohmer Creek Loop Trail at milepost 0.33. Currently road has crushed gravel to milepost 0.3, desired future condition is to place crushed gravel to junction of Road 40006 at milepost 1.5.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.50	3 (open to standard passenger vehicles)	3	Active
1.50	2.81	2 (open to high clearance vehicles)	2	Inactive

Maintenance Narrative

Active: Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush, grade as needed to maintain crown and running surface.

Storm proof: provide waterbars, rolling dips to assure controlled runoff until any needed maintenance can be performed on the primary drainage system, control roadside brush.

Operation Criteria

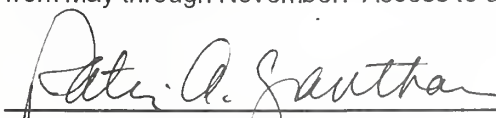
Highway Safety Act: Yes to milepost 1.5 **Jurisdiction:** National Forest Ownership

Travel Management Strategies	Encourage: All licensed high clearance vehicles, bicycles, and hikers Accept: Off highway vehicles Discourage: Standard passenger vehicles beyond MP 0.33 Prohibit: N/A Eliminate: N/A
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Travel Management Narrative

Public travel on this road occurs year round when snow conditions permit. Receives high use during deer and moose hunting seasons in the fall, used for firewood and free use timber access, berry picking, and sightseeing from May through November. Access to unimproved trail to Crystal Mountain provided by this road.

Approved


 District Ranger

7.20.01

Date

Road Management Objective

Project Woodpecker		System Mitkof	Land Use Designation ML
Route No. 6280	Route Name Crystal Lake	Begin Termini MP 1.4 Rd. 6245	End Termini MP 2.58
Begin MP 0.0	Length 2.58	Status Existing	Map Quarter Quad PSG C-3
Photo year, roll, photos '98 2098-153, 2198-23			

General Design Criteria and Elements

Functional Class Local	Service Life LI	Surface Shot rock	Width 14'	Design Speed 10	Critical Vehicle Logging truck	Design Vehicle Logging Truck
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Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain closed to licensed vehicles to reduce maintenance needs.

Maintenance Criteria

Bmp 0.00	Emp 2.58	Operational Maintenance Level (Current Condition) 1 (closed)	Objective Maintenance Level (Desired Future Condition) 1	Alaska Forest Practices Act Closed
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Maintenance Narrative

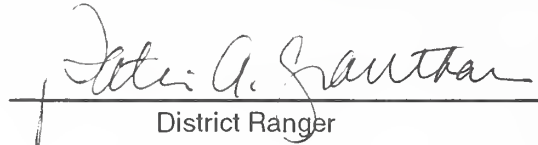
Storage: remove or bypass problem drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, re-vegetate.

Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage:	N/A	
	Accept:	Hikers	
	Discourage:	Motorized vehicles	
	Prohibit:	N/A	
	Eliminate:	Standard passenger and high clearance vehicles	

Travel Management Narrative

This road is currently closed with alder growth. It may be periodically opened for timber access, however desired future condition of this road is storage.

Approved <u></u> District Ranger	<u>7.20.01</u> Date
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Road Management Objectives

Site Specific Design Criteria Road 6280

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

STREAM CROSSINGS: There is some bedload movement in the stream. A 23-foot long log stringer bridge currently at this site is not safe for traffic. Verify fish presence prior to establishing timing restraints for construction. This road is proposed for short-term entry for timber removal, followed by storage, using temporary bridge structure.

Location	Description	Structure
MP <u>1.2</u> AHMU <u>II</u> Channel Type <u>HC3</u>	BF Depth <u>1.5 ft</u> Incision <u>6 ft</u> Substrate <u>cobble</u> BF Width <u>10 ft</u>	Gradient <u>14%</u> Structure <u>bridge</u>

Road Management Objective

Project Woodpecker		System Mitkof	Land Use Designation SV, ML
Route No. 6281	Route Name East Sumner Mountain	Begin Termini MP 3.1 Rd. 6245	End Termini MP 2.7
Begin MP 0.0	Length 2.7	Status Existing	Map Quarter Quad PSG C-3
Photo year, roll, photos '98 2198-25, '99 2398-154-155			

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LI	Shot rock	14'	10	Logging truck	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain closed to licensed vehicles beyond proposed camping area due to alder growth to reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.0	0.5	1 (closed)	2	Closed
0.5	2.7	1	1	

Maintenance Narrative

Storage beyond milepost 0.5, remove or bypass problem drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, revegetate.

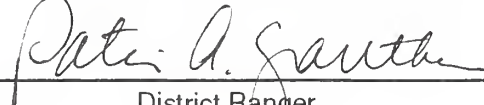
Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: N/A Accept: Hikers Discourage: Motorized vehicles Prohibit: N/A Eliminate: Standard passenger and high clearance vehicles		

Travel Management Narrative

Accessible from the city of Petersburg, public travel on this road is currently limited due to roadside alder growth. The road is used by hunters in the fall. The road may be periodically opened for timber access, however the desired future condition of this road is storage beyond the proposed camping area at milepost 0.5.

Approved


 District Ranger

7.20.01
 Date

Road Management Objectives

Site Specific Design Criteria Road 6281

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

STREAM CROSSINGS:

MP <u>0.4</u> AHMU <u>II</u> Channel Type <u>HC3</u> BF Width <u>2 ft</u>	BF Depth <u>0.5 ft</u> Incision <u>2 ft</u> Substrate <u>cobble</u>	Gradient <u>8%</u> Structure <u>CMPA</u>
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Narrative: Verify fish presence prior to establishing timing restraints for construction.

MP <u>0.8</u> AHMU <u>I</u> Channel Type <u>HC1</u> BF Width <u>2 ft</u>	BF Depth <u>0.5 ft</u> Incision <u>2 ft</u> Substrate <u>cobble</u>	Gradient <u>6%</u> Structure <u>CMPA</u>
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Narrative: Verify fish presence prior to establishing timing restraints for construction. This road is proposed for short-term entry for timber removal, followed by storage.

Road Management Objective

Project		System	Land Use Designation
Woodpecker		Mitkof	SV, ML
Route No.	Route Name	Begin Termini	End Termini
6282	Sumner Pass	MP 4.1 Rd. 6245	MP 4.36
Begin MP	Length	Status	Map Quarter Quad
0.0	4.36	Existing	PSG C-3
			Photo year, roll, photos
			'98 2198-26, 2198-37 '99 2398-98-99, 2398-90-91

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LC	Shot rock	14'	10	Logging truck	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain open to standard passenger vehicles.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	4.36	3 (open to standard passenger vehicles)	3	Active

Maintenance Narrative

Active: Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush, grade as needed to maintain crown and running surface.

Operation Criteria

Highway Safety Act:	Yes	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: N/A Accept: Standard passenger vehicles Discourage: N/A Prohibit: N/A Eliminate: N/A		

Travel Management Narrative

Public travel on this road occurs year round when snow conditions permit. Receives high use during deer and moose hunting seasons.

Approved


 District Ranger

7.20.01
 Date

Road Management Objectives

Site Specific Design Criteria Road 6282

Three road fill failures occurred near milepost 3.7 in the fall of 1999 and 2000. The road is currently closed to traffic beyond the site due to the failures. This area is scheduled for a survey in 2001.

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

STREAM CROSSINGS:

MP <u>2.0</u> AHMU <u>II</u> Channel Type <u>MC2</u> BF Width <u>30 ft</u>	BF Depth <u>3.0 ft</u> Incision <u>20 ft</u> Substrate <u>bedrock, cobble</u>	Gradient <u>6%</u> Structure <u>bridge</u>
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Narrative: A 61-foot long log stringer bridge currently at this site will be replaced with a permanent bridge. No in-stream work will be allowed from March 1 through July 18.

Road Management Objective

Project Woodpecker		System Mitkof		Land Use Designation SV, ML	
Route No. 6283	Route Name South Sumner Mountain		Begin Termini MP 5.2 Rd. 6245		End Termini MP 1.35
Begin MP 0.0	Length 1.35	Status Existing	Map Quarter Quad PSG C-3		Photo year, roll, photos '98 2198-26-27

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LI	Shot rock	14'	10	Logging truck	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain closed to licensed vehicles after use to reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.35	1 (closed)	1	Closed

Maintenance Narrative

Storage: remove or bypass problem drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, revegetate.

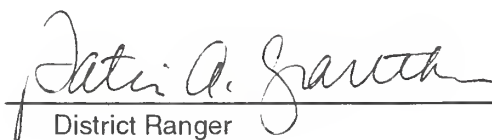
Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage:	N/A	
	Accept:	Hikers	
	Discourage:	Motorized vehicles	
	Prohibit:	N/A	
	Eliminate:	Standard passenger and high clearance vehicles	

Travel Management Narrative

Public travel on this road is currently limited to a few high clearance vehicles due to rough surface conditions. May be periodically opened for timber access, however desired future condition for this road is storage.

Approved


District Ranger

7.20.01
Date

Road Management Objectives

Site Specific Design Criteria Road 6283

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

STREAM CROSSINGS:

MP <u>0.9</u> AHMU <u>2</u> Channel Type <u>HC1</u> BF Width <u>10 ft</u>	BF Depth <u>1.5 ft</u> Incision <u>6 ft</u> Substrate <u>bedrock, cobble</u>	Gradient <u>10%</u> Structure <u>bridge</u>
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Narrative: Log stringer bridge at this site was removed after past timber harvest. This road is proposed for short-term entry for timber removal, and then will be placed into storage category. Use a temporary bridge structure. No in-stream work will be allowed from March 1 through July 18.

Road Management Objective

Project Woodpecker		System Mitkof		Land Use Designation SV, ML, TP	
Route No. 6284	Route Name West Sumner Mountain	Begin Termini MP 13.3 Rd. 6245		End Termini MP 1.1	
Begin MP 0.0	Length 1.1	Status Existing	Map Quarter Quad PSG C-3	Photo year, roll, photos '99 2398-27-28	

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LI	Shot rock	14'	10	Logging truck	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain closed to licensed vehicles beyond the removed bridge at MP 0.05 to reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.1	1 (closed)	1	Closed

Maintenance Narrative

Storage: remove or bypass problem drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, re-vegetate.

Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage:	N/A	
	Accept:	Hikers	
	Discourage:	Motorized vehicles	
	Prohibit:	N/A	
	Eliminate:	Standard passenger and high clearance vehicles	

Travel Management Narrative

Public travel on this road is currently limited to hikers and occasional off road vehicles due to bridge removal at MP 0.05. May be periodically opened for timber access, however desired future condition of this road is storage.

Approved


District Ranger

7.20.01
Date

Road Management Objective
Site Specific Design Criteria
Road 6284

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

STREAM CROSSINGS:

MP <u>0.05</u> AHMU <u>II</u> Channel Type <u>HC2</u> BF Width <u>30 ft</u>	BF Depth <u>2.5 ft</u> Incision <u>6 ft</u> Substrate <u>bedrock, cobble</u>	Gradient <u>3 to 10%</u> Structure <u>bridge</u>
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Narrative: Log stringer bridge at this site was removed after past timber harvest. This road is proposed for short-term entry for timber removal, and then will be placed into storage category. Use a temporary bridge structure. No in-stream timing is required.

Road Management Objective

Project		System		Land Use Designation
Woodpecker		Mitkof		
Route No.	Route Name	Begin Termini	End Termini	
6285	Woodpecker Cove	MP 8.5 Rd. 6245	MP 0.23 Woodpecker Cove	
Begin MP	Length	Status	Map Quarter Quad	Photo year, roll, photos
0.0	0.23	Existing	PSG C-3	'99 2398-95

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Collector	LC	Shot rock	16'	10	Lowboy	Logging Truck

Intended Purpose/Future Use

This is the access road to the Woodpecker Cove LTF. It is used for public access, recreation, general forest management and administration. Road will remain open to all licensed vehicles.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	0.23	3 (open to standard passenger vehicles)	3	Active

Maintenance Narrative

Active: Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush, grade as needed to maintain crown and running surface.

Operation Criteria

Highway Safety Act:	Yes	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage:	All licensed vehicles	
	Accept:	Hikers, bicycles	
	Discourage:	N/A	
	Prohibit:	N/A	
	Eliminate:	N/A	

Travel Management Narrative

Public travel on this road occurs year round when snow conditions permit.

Approved Patti A. Gauthier
District Ranger

7.20.01
Date

Road Management Objective

Project		System	Land Use Designation
Woodpecker		Mitkof	SV, ML
Route No.	Route Name	Begin Termini	End Termini
6286	Riva Ridge	MP 14 Rd. 6245	MP 1.6
Begin MP	Length	Status	Map Quarter Quad
0.0	1.6	Existing	PSG C-3
			Photo year, roll, photos
			'98 1798-238 '99 2398-27-28

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LC	Shot rock	14'	10	Logging Truck	Logging Truck

Intended Purpose/Future Use

This road is used for public access, recreation, general forest management and administration. The road will remain open to all high clearance vehicles. The road provides access to a possible future site of dispersed camping/picnic area(s).

Maintenance Criteria

Bmp	Empr	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.6	2 (open to high clearance vehicles)	2	Inactive

Maintenance Narrative

Storm proof: provide waterbars, rolling dips to assure controlled runoff. Control roadside brush to maintain passage.


Operation Criteria


Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: All licensed high clearance vehicles, bicycles, and hikers Accept: Off highway vehicles Discourage: Standard passenger vehicles Prohibit: N/A Eliminate: N/A		

Travel Management Narrative

Public travel on this road occurs year round when snow conditions permit. The road receives high use during deer hunting season and offers good views of Sumner Strait and Zarembo Island.

Approved


District Ranger


Date

Road Management Objective

Site Specific Design Criteria

Road 6286

EROSION CONTROL: A small road fill failure occurred on this road in late 1999 near milepost 1.1. A contract to repair the road is currently in progress. An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6).

Road Management Objective

Project		System	Land Use Designation	
Woodpecker		Mitkof	SV	
Route No.	Route Name	Begin Termini	End Termini	
6287	Point Alexander	MP 11.5 Rd. 6245	MP 1.53	
Begin MP	Length	Status	Map Quarter Quad	Photo year, roll, photos
0.0	1.5	Existing	PSG C-3	'99 2398-25, '98 1798-240

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LI	Shot rock	14'	10	Logging Truck	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain closed to all vehicles to reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.53	1 (closed)	1	Closed

Maintenance Narrative

Storage: Road is currently barricaded at beginning. Alder growth has closed road to standard vehicles.

Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: Accept: Discourage: Prohibit: Eliminate:	N/A Hikers Off highway vehicles Standard passenger and high clearance vehicles N/A	

Travel Management Narrative

This road is closed to vehicles and is barricaded at the beginning. A tree thinning demonstration project is located along the first mile of the road. Foot traffic will continue.

Approved


District Ranger

7.20.01

Date

Road Management Objective

Project		System		Land Use Designation	
Woodpecker		Mitkof		SV	
Route No.	Route Name	Begin Termini		End Termini	
40003	Endhaul	MP 15.3 Rd. 6245		MP 0.33	
Begin MP	Length	Status	Map Quarter Quad	Photo year, roll, photos	
0.0	0.33	Existing	PSG C-3	1998, 1798-237	

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LC	Shot rock	14'	10	Mobile Yarder	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. The road will remain open to high clearance vehicles. The road provides access to possible future site of a dispersed picnic area.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	0.33	2 (open to high clearance vehicles)	2	Inactive

Maintenance Narrative

Storm proof: provide waterbars, rolling dips to assure controlled runoff. Control roadside brush to maintain passage.


Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage:	N/A	
	Accept:	All licensed high clearance vehicles, bicycles, and hikers	
	Discourage:	Standard passenger vehicle	
	Prohibit:	N/A	
	Eliminate:	N/A	

Travel Management Narrative

Keep open to high clearance vehicles. Construct and maintain a parking turnout for dispersed picnic area with sufficient space for turning vehicles around on this dead end road.

Approved


District Ranger

7.20.01
Date

Road Management Objective

Project Woodpecker		System Mitkof	Land Use Designation ML
Route No. 40004	Route Name Ridge Run	Begin Termini MP 0.8 Rd. 6286	End Termini MP 0.54
Begin MP 0.0	Length 0.54	Status Existing	Map Quarter Quad PSG C-3
		Photo year, roll, photos 1998, 1798-239	

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LC	Shot rock	14'	10	Mobile Yarder	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	0.54	2 (open to high clearance vehicles)	2	Inactive

Maintenance Narrative

Storm proof, install drivable waterbars to aid in controlled drainage, and control brush.

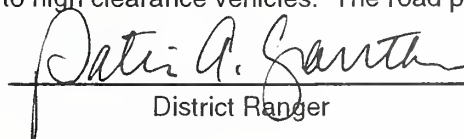
Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage:	N/A	
	Accept:	High clearance vehicles and hikers	
	Discourage:	Standard passenger vehicle	
	Prohibit:	N/A	
	Eliminate:	N/A	

Travel Management Narrative

Keep open to high clearance vehicles. The road provides access to a proposed camping site.

Approved


District Ranger

7.20.01
Date

Road Management Objective

Project		System	Land Use Designation
Woodpecker		Mitkof	ML, SA
Route No.	Route Name	Begin Termini	End Termini
40006	Snake Ridge	MP 1.5 Rd 6246	MP 1.40 Crystal Mtn. trailhead
Begin MP	Length	Status	Map Quarter Quad
0.0	1.40	Existing	PSG C-3
			Photo year, roll, photo
			1998, 2198-21

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LC	Shot rock	14'	10	Mobile Yarder	Logging Truck

Intended Purpose/Future Use

This road is used for public access, recreation, general forest management and administration. Provides access to an unimproved trail to the Crystal Mountain alpine area. The current road surface is shot rock. The desired future condition is a crushed rock surface.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.40	2 (open to high clearance vehicles)	3 (open to standard passenger vehicles)	Active

Maintenance Narrative

Active: Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush, grade as needed to maintain crown and running surface.

Operation Criteria

Highway Safety Act:	Yes	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: N/A Accept: All licensed high clearance vehicles, bicycles, and hikers Discourage: Standard passenger vehicle Prohibit: N/A Eliminate: N/A		

Travel Management Narrative

One of the few roads that access higher elevations on the island; provide access to all standard passenger vehicles.

Approved


 District Ranger

7.20.01
 Date

Road Management Objective

Project Woodpecker		System Mitkof	Land Use Designation OG
Route No. 40083	Route Name Muck	Begin Termini MP 5.6 Rd. 6245	End Termini MP 0.8
Begin MP 0.0	Length 0.8	Status Existing	Map Quarter Quad PSG C-3
		Photo year, roll, photos 1998, 2098-149	

General Design Criteria and Elements

Functional Class Local	Service Life LI	Surface Shot rock	Width 14'	Design Speed 10	Critical Vehicle Logging Truck	Design Vehicle Logging Truck
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Intended Purpose/Future Use

Constructed in 1975/76 for timber access and general forest management, the road has since grown closed with alder making all but narrow off-road vehicle use difficult. The road will remain closed to licensed vehicles to reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	0.8	1 (closed)	1	Closed

Maintenance Narrative

Storage: remove drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, revegetate.

Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: N/A Accept: Hikers Discourage: N/A Prohibit: N/A Eliminate: Motorized vehicles		

Travel Management Narrative

Road is closed with alder growth. Remove drainage structures, keep road closed to motor vehicles. This road is located within Forest Plan South Blind Slough OGR.

Approved

John A. Grant
District Ranger

7.20.01

Date

Road Management Objective

Project Woodpecker		System Mitkof	Land Use Designation SV
Route No. 6282	Route Name Sumner Pass	Begin Termini MP 4.36 Rd 6282	End Termini MP 11 Rd 6245
Begin MP 4.36	Length 0.75	Status Planned	Map Quarter Quad PSG C-3
Photo year, roll, photos '99 2398-28-30, 2398-100-101			

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LC	Shot rock	14'	10	Logging truck	Logging Truck

Intended Purpose/Future Use

Public access, recreation, general forest management and administration. Road will remain open to standard passenger vehicles.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current or Planned Initial Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
4.36	5.11	3 (open to standard passenger vehicles)	3	Active

Maintenance Narrative

Active: Provide frequent cleanout of ditches and catch basins to assure controlled drainage. Control roadside brush, grade as needed to maintain crown and running surface.

Operation Criteria

Highway Safety Act:	Yes	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: N/A Accept: Standard passenger vehicles Discourage: N/A Prohibit: N/A Eliminate: N/A		

Travel Management Narrative

This road segment would complete a loop connecting Roads 6282 and 6245.

Approved


 District Ranger

7.20.01
 Date

Road Management Objective

Site Specific Design Criteria Road 6282

ROAD LOCATION: The road steadily loses elevation between the end of the existing Road 6282 and the intersection with existing Road 6245 at MP 11. The topography is gentle, except for two V-notch control points, one on the north and one on the south entrance into Unit 121.

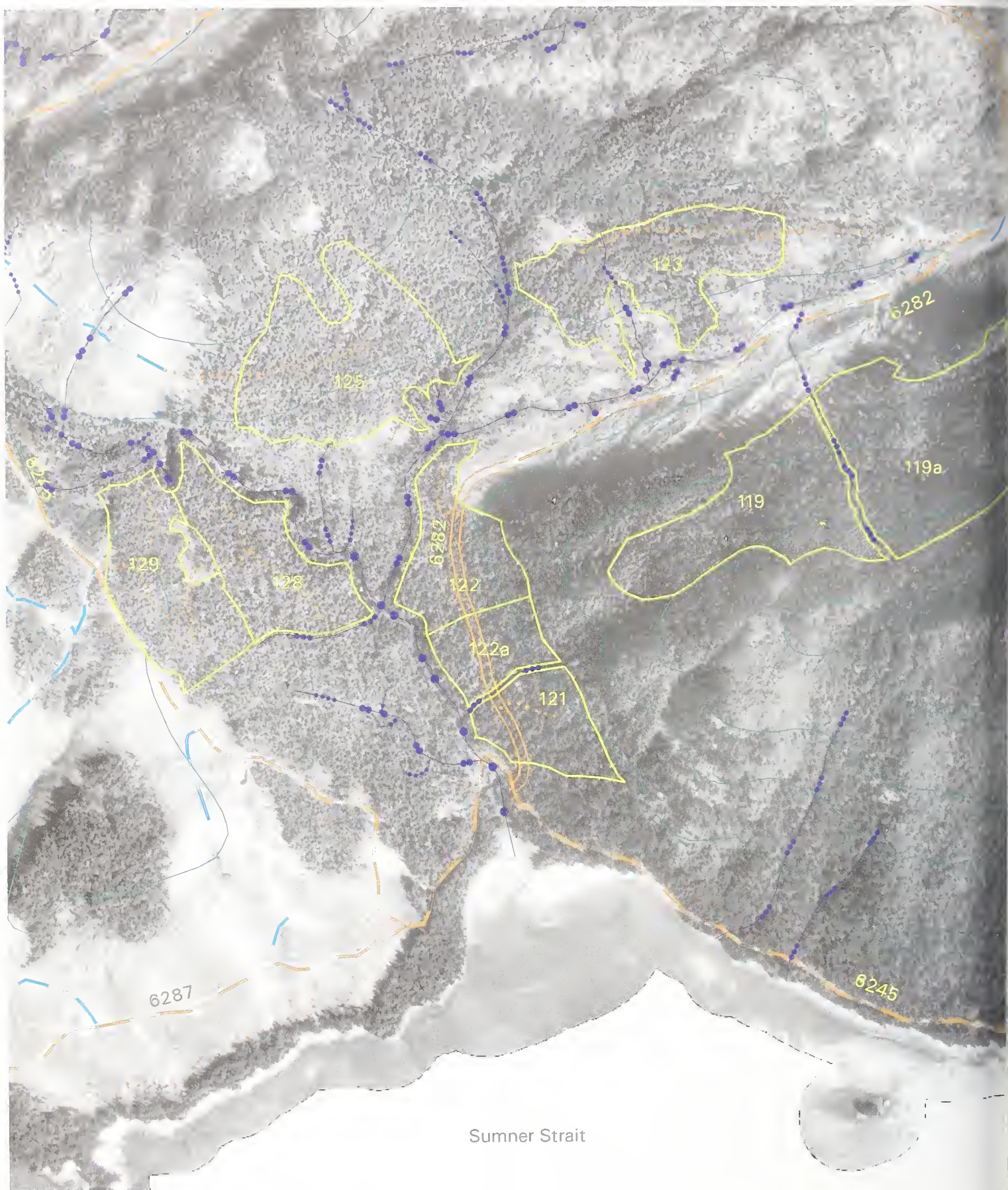
WETLANDS: The road location crosses no mapped wetlands (BMP 12.5). Most of this road segment would be constructed as a timber access road; however, the timber purchaser may not need the loop completed for log haul. The last segment needed to complete the loop may be constructed under a public works contract.

SCENERY: The road may be seen from Sumner Strait. Seed or plant alder on cut banks. Trees retained within the harvest unit may provide screening.

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8)

ROCK PITS: There are visual concerns along this segment, therefore no new rock pits will be allowed on this extension of Road 6282.

STREAM CROSSINGS: There are no stream crossings that require site-specific design consideration for volume of flow, fish habitat, or other design complexity.



- Existing Classified Roads
- Existing Closed Roads
- Proposed Classified Roads
- Unit Boundary
- Proposed Temporary Roads
- AHMU-Class I
- AHMU-Class II

- AHMU-Class III
- AHMU-Class IV
- 500ft Contours

ROAD_6282



Scale is 1 inch = 1320 feet

Road Management Objective

Project		System		Land Use Designation	
Woodpecker		Mitkof		ML	
Route No.	Route Name	Begin Termini		End Termini	
40821	High Pass	MP 1.75 Rd. 6282		MP 1.84	
Begin MP	Length	Status	Map Quarter Quad	Photo year, roll, photos	
0.0	1.84	Planned	PSG C-3	'99 2398-97-99	

General Design Criteria and Elements

Functional Class	Service Life	Surface	Width	Design Speed	Critical Vehicle	Design Vehicle
Local	LI	Shot rock	14'	10	Logging Truck	Logging Truck

Intended Purpose/Future Use

The road is used for access for silvicultural activities. This road will be extended in the future, to access timber along the slope to the south. The road will be placed into storage after timber harvest to minimize wildlife impacts and reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current or Planned Initial Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.84	2	1	Closed

Maintenance Narrative

Storage: remove or bypass all drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, re-vegetate.

Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
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Travel Management Strategies

Encourage: N/A
Accept: Hikers
Discourage: motorized vehicles
Prohibit: N/A
Eliminate: N/A

Travel Management Narrative

By removing crossing structures, most motorized vehicle use will be eliminated. Restore crossings when needed in the future.

Approved


District Ranger

7-20-01
Date

Road Management Objectives

Site Specific Design Criteria Road 40821

ROAD LOCATION: The road steadily gains elevation along a north-facing slope in order to reach a switchback and a high bench area.

WETLANDS: Road location was completed to avoid wetlands wherever practicable. Wetlands were unavoidable on some portions of the location due to safety, engineering design constraints and considerations for other resources. Alternatives to the location on wetlands would mean longer higher cost roads that may have impacted similar areas of wetlands. High value wetlands (fens) were particularly avoided wherever practicable.

The first 500 feet crosses a muskeg/forested wetland mosaic (BMP 12.5). The location is here to avoid open muskeg on each side and to use a flat ridge location versus the slope to the south above an AHMU Class II stream. An area of muskeg/forested wetland is crossed between Units 117b and 117c. Approximately 1,000 feet long, the location is here to reach a stable crossing of the stream at point A. A short section of muskeg/forested wetland is crossed at point B since the gentle terrain in this area allows room for a switchback with less environmental impacts than on steeper forested slopes. A 400-foot section of forested upland/wetland mosaic crossed near the end of the road is controlled by topography and grade restrictions.

SCENERY: The road may be seen from Crystal Mountain. Screen with trees where possible and seed or plant alder on cutbanks.

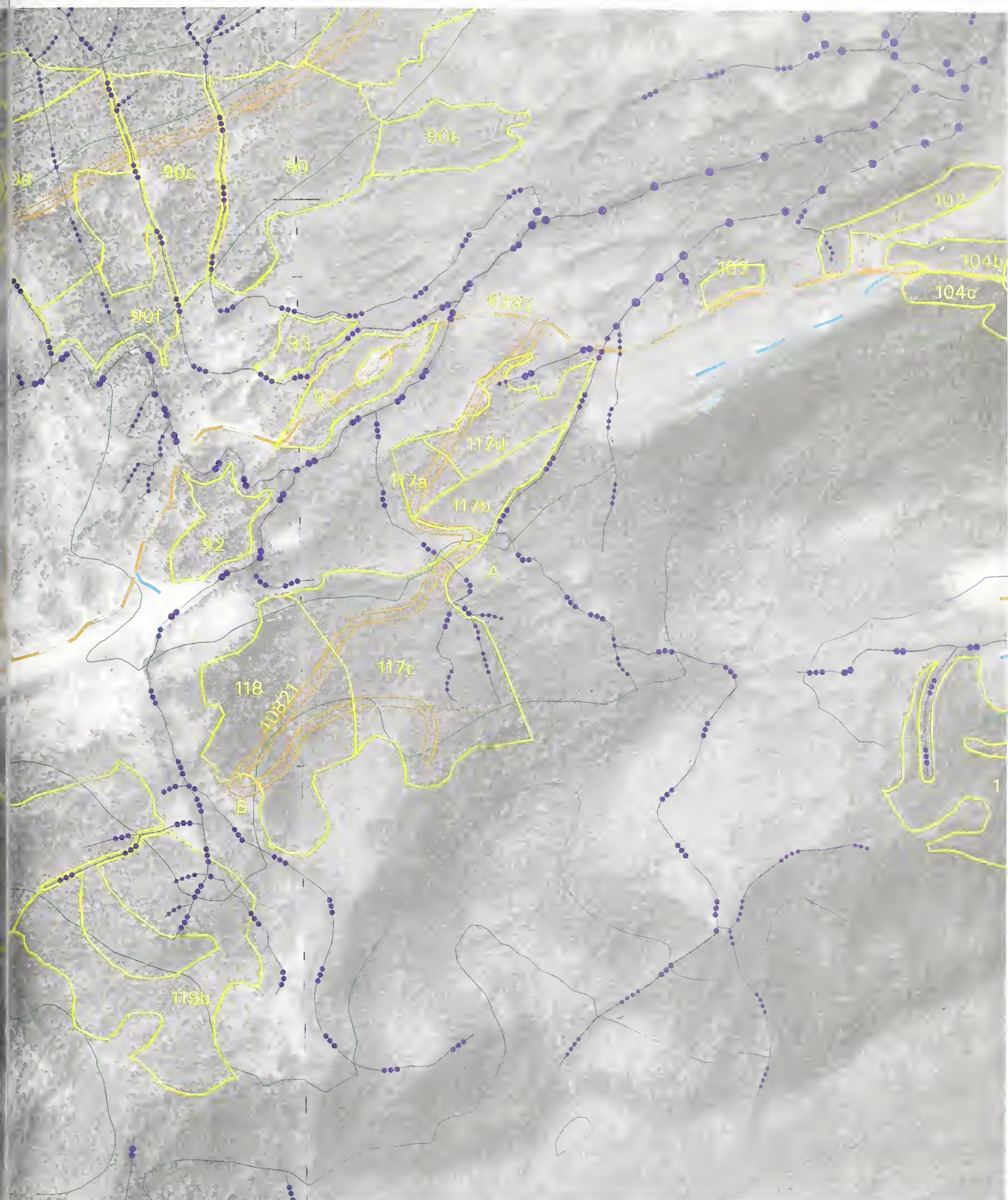
EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).









ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6). Screen rock pits from view from Crystal Mountain.

STREAM CROSSINGS:

MP <u>0.74</u> AHMU <u>III</u> Channel Type <u>HC5</u> BF Width <u>12ft</u>	BF Depth <u>1 ft</u> Incision <u>5 ft</u> Substrate <u>gravel to 1 ft cobble</u>	Gradient <u>5%</u> Structure <u>12m panel</u> <u>bridge</u>
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Narrative: Large woody debris in stream holding gravel, little bedload movement.



-  Existing Classified Roads
-  Existing Closed Roads
-  Proposed Classified Roads
-  Unit Boundary
-  Proposed Temporary Roads
-  AHMU-Class I
-  AHMU-Class II
-  AHMU-Class III
-  AHMU-Class IV
-  500ft Contours

ROAD_40821



Road Management Objective

Project Woodpecker		System Mitkof		Land Use Designation TP, ML, SV	
Route No. 40822	Route Name Upper Sumner		Begin Termini MP 3.3 Rd. 6282	End Termini MP 2.19	
Begin MP 0.0	Length 2.19	Status Planned	Map Quarter Quad PSG C-3	Photo year, roll, photos '99 2398-28-29, 2398-97-101	

General Design Criteria and Elements

Functional Class Local	Service Life LI	Surface Shot rock	Width 14'	Design Speed 10	Critical Vehicle Logging Truck	Design Vehicle Logging Truck
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Intended Purpose/Future Use

Access for silvicultural activities. Will be extended in the future, accessing timber along the slope to the north. Close road after timber harvest at junction of temporary road to west to minimize wildlife displacement and reduce maintenance needs.

Maintenance Criteria

Bmp	Emp	Operational Maintenance Level (Current or Planned Initial Condition)	Objective Maintenance Level (Desired Future Condition)	Alaska Forest Practices Act
0.00	1.01	2	2	Inactive
1.01	2.19	1	1	Closed

Maintenance Narrative

Storm proof first segment to junction of temporary road to west. Storage on remainder of road: remove or bypass all drainage structures to restore natural drainage patterns, add waterbars as needed to control runoff, re-vegetate.

Operation Criteria

Highway Safety Act:	No	Jurisdiction:	National Forest Ownership
Travel Management Strategies	Encourage: Accept: Discourage: Prohibit: Eliminate:	N/A Hikers Standard passenger vehicles on first 1.01 miles N/A Standard passenger and high clearance vehicles beyond MP 1.01.	

Travel Management Narrative

By removing crossing structures, most motorized vehicle use will be eliminated. Restore crossings when needed in the future.

Approved


District Ranger

7.20.01
Date

Road Management Objectives

Site Specific Design Criteria

Road 40822

ROAD LOCATION: The objective of the road location is to access the south-facing slope north of the existing Road 6282 from the highest point on Road 6282. The main control point in crossing the valley from south to north is a main branch of Sumner Creek at Point A. This branch becomes a deep and wide V-notch below the proposed crossing, whereas the proposed crossing is a fairly simple bridge site. The south-facing slope affords several benches for landings. The road can be extended in the future to access timber to the north.

WETLANDS: Road location was completed to avoid wetlands wherever practicable. Wetlands were unavoidable on some portions of the location due to safety, engineering design constraints and considerations for other resources. Alternatives to the location on wetlands would mean longer higher cost roads that may have impacted similar areas of wetlands. High value wetlands (fens) were particularly avoided wherever practicable.

The first 500 feet crosses a soil type mapped as muskeg wetland (BMP 12.5). The road location is here because this is the highest elevation on Road 6282 in which to access the bridge site at point A. A segment approximately 2,500 feet long of muskeg/forested wetland mosaic including the bridge site at point A was unavoidable due to the need to reach point A, a relatively simple crossing of a wide, deep V-notch below the bridge site. A 400-foot segment of the road crosses forested wetland on the east border of Unit 90d because of the gentle terrain it provides as opposed to the steeper side slopes above.

EROSION CONTROL: An erosion control plan for construction and maintenance will be developed by the contractor and approved by the Contracting Officer (BMP 14.5). All areas of organic or mineral soil exposed during construction shall be grass seeded and fertilized (BMP 12.17, 14.8).

ROCK PITS: During periods of high rainfall (as defined in current Regional specifications), blasting operations will be suspended at quarries near potentially unstable sites where ground vibration may induce mass movement (BMP 14.6). There may be visual concerns along this road from midway through Unit 90 to the end of the road.

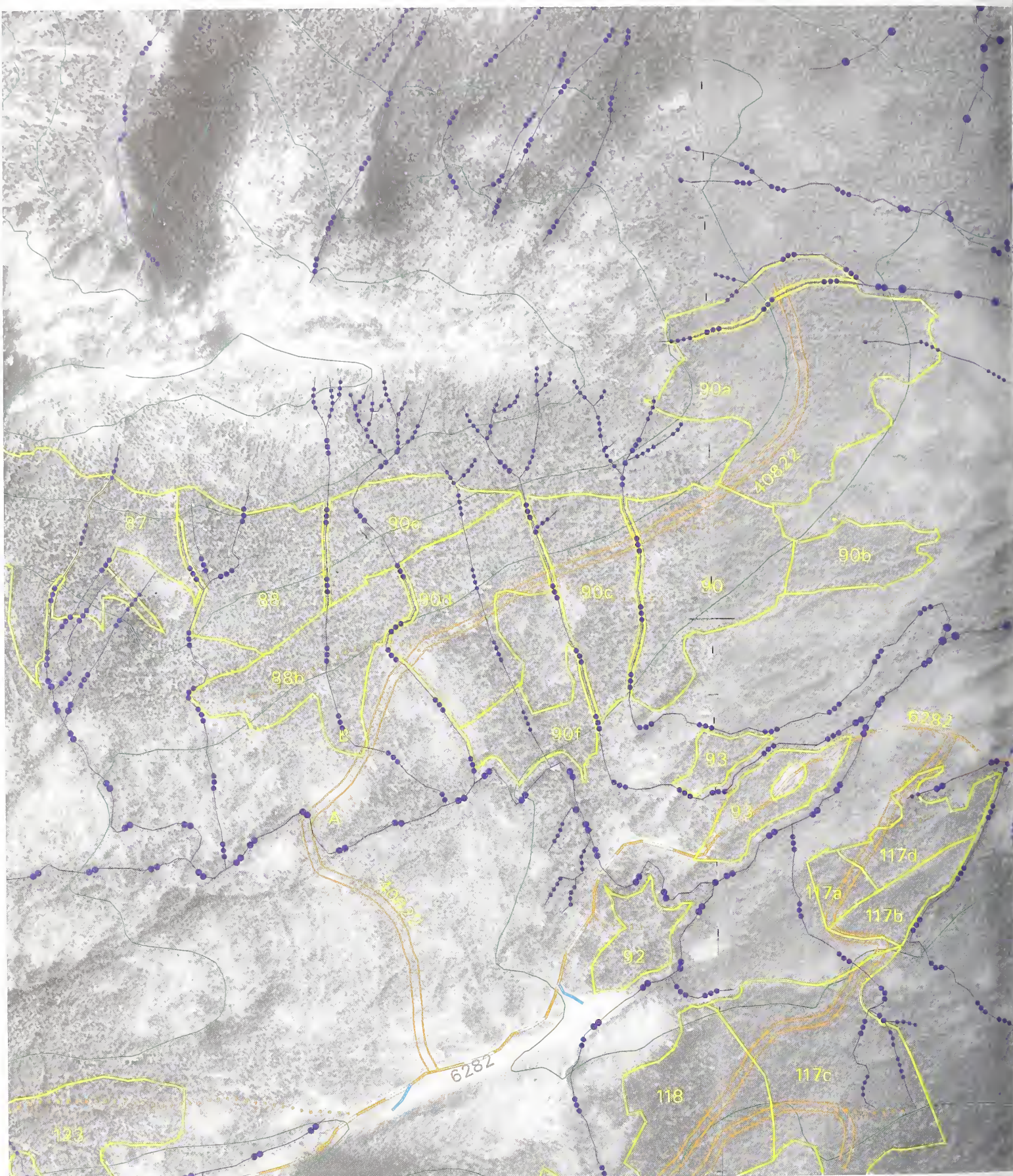
STREAM CROSSINGS:

A) MP <u>0.59</u> AHMU <u>II</u>	Channel Type <u>HC4</u>	BF Width <u>14 ft</u>
BF Depth <u>3 ft</u>	Substrate <u>bedrock, cobble</u>	Structure <u>12 m Panel Bridge</u>
Incision <u>5 ft</u>	Gradient <u>8%</u>	

Narrative: Very little bedload movement, mostly bedrock, becomes a 50-foot-deep V-notch 200 feet downstream. No timing required.

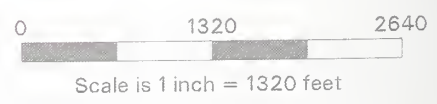
B) MP <u>0.76</u> AHMU <u>III</u>	BF Depth <u>1 ft</u>	Gradient <u>8%</u>
Channel Type <u>HC5</u>	Incision <u>4 ft</u>	Structure <u>81" x 59" CMPA</u>
BF Width <u>6 ft</u>	Substrate <u>gravel</u>	

Narrative: No timing required.



- Existing Classified Roads
- Existing Closed Roads
- Proposed Classified Roads
- Unit Boundary
- Proposed Temporary Roads
- AHMU-Class I
- AHMU-Class II
- AHMU-Class III
- AHMU-Class IV
- 500ft Contours

ROAD_40822

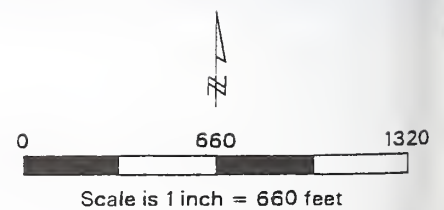
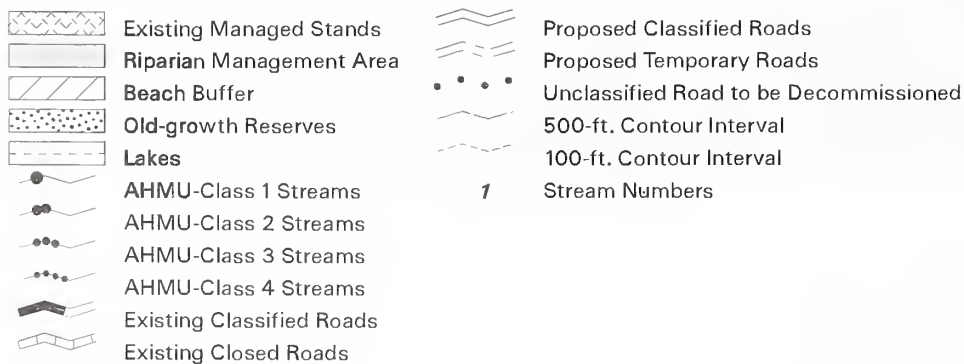
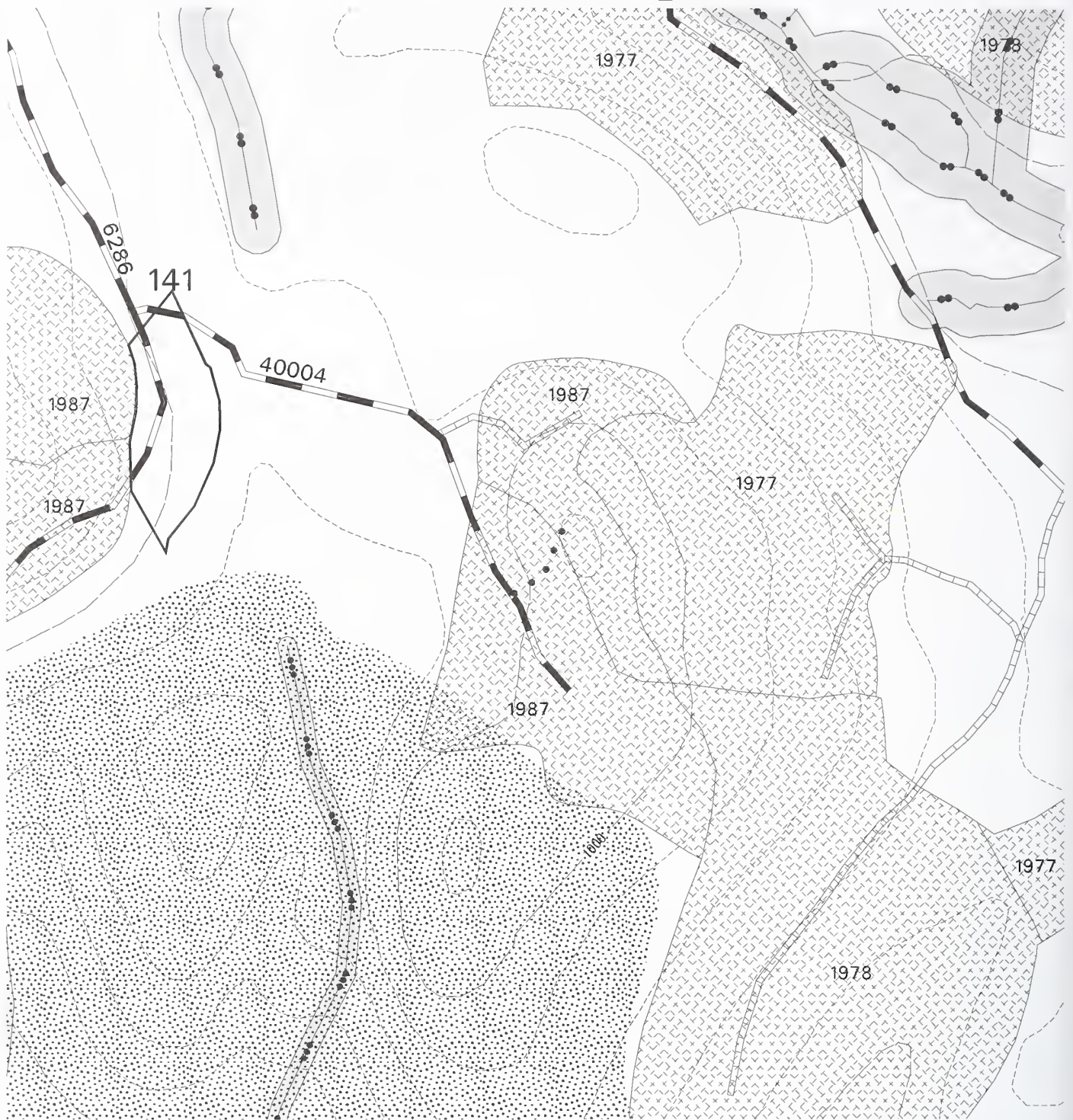


Road Management Objectives

Unclassified Road 40004_0.483L

This road was constructed as a temporary road that was used to access timber in 1987. It is located at milepost 0.483 on Road 40004. This road is not needed for the long term road management system and is within a previously harvested stand. This road is located on a ridge with no drainage structures and is 300 feet (0.057 miles) long. It will be closed by installing a ditch at the entrance that will be impassable to motorized vehicles.

Unclassified Road 40004_0.483L



Recreation Cards For Selected Alternative

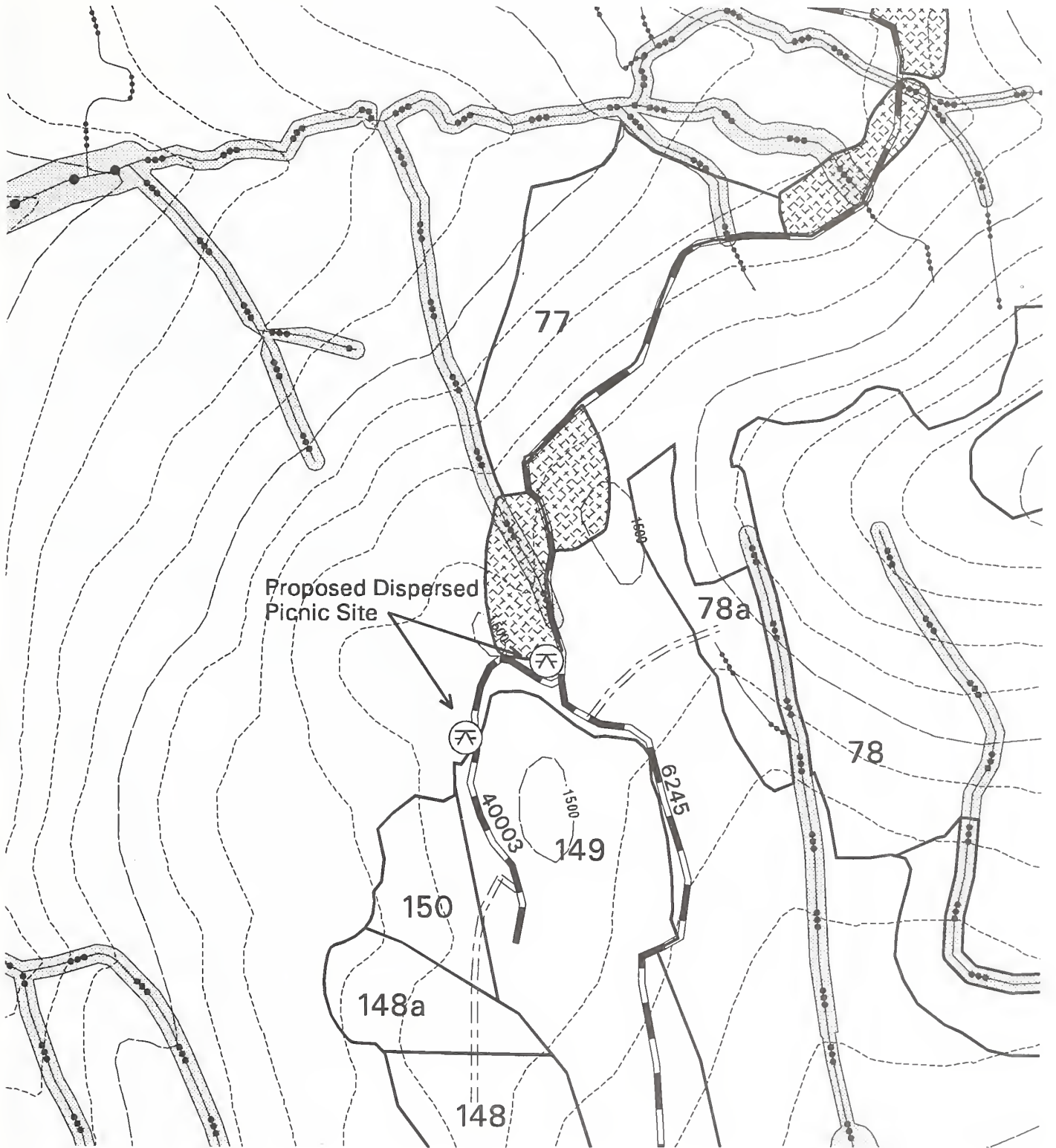
Recreation Project #1

Picnic/Dispersed Campsites on Road 40003 (Endhaul Road)

One site is located in a small muskeg meadow on the west side of Road 40003. The site has views to the west and southwest towards the southern end of Wrangell Narrows. The project includes a short access trail through the muskeg or through forest on the edge of the muskeg. Platforms for a tent and picnic table will be developed. Any necessary wetlands permits will be obtained from the Corps of Engineers before construction begins.

A second picnic site will be developed at the junction of Road 40003 and Road 6245. This site has good views to the north.

Woodpecker Recreation Project # 1



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams

- AHMU-Class 4 Streams
- Existing Classified Roads
- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval

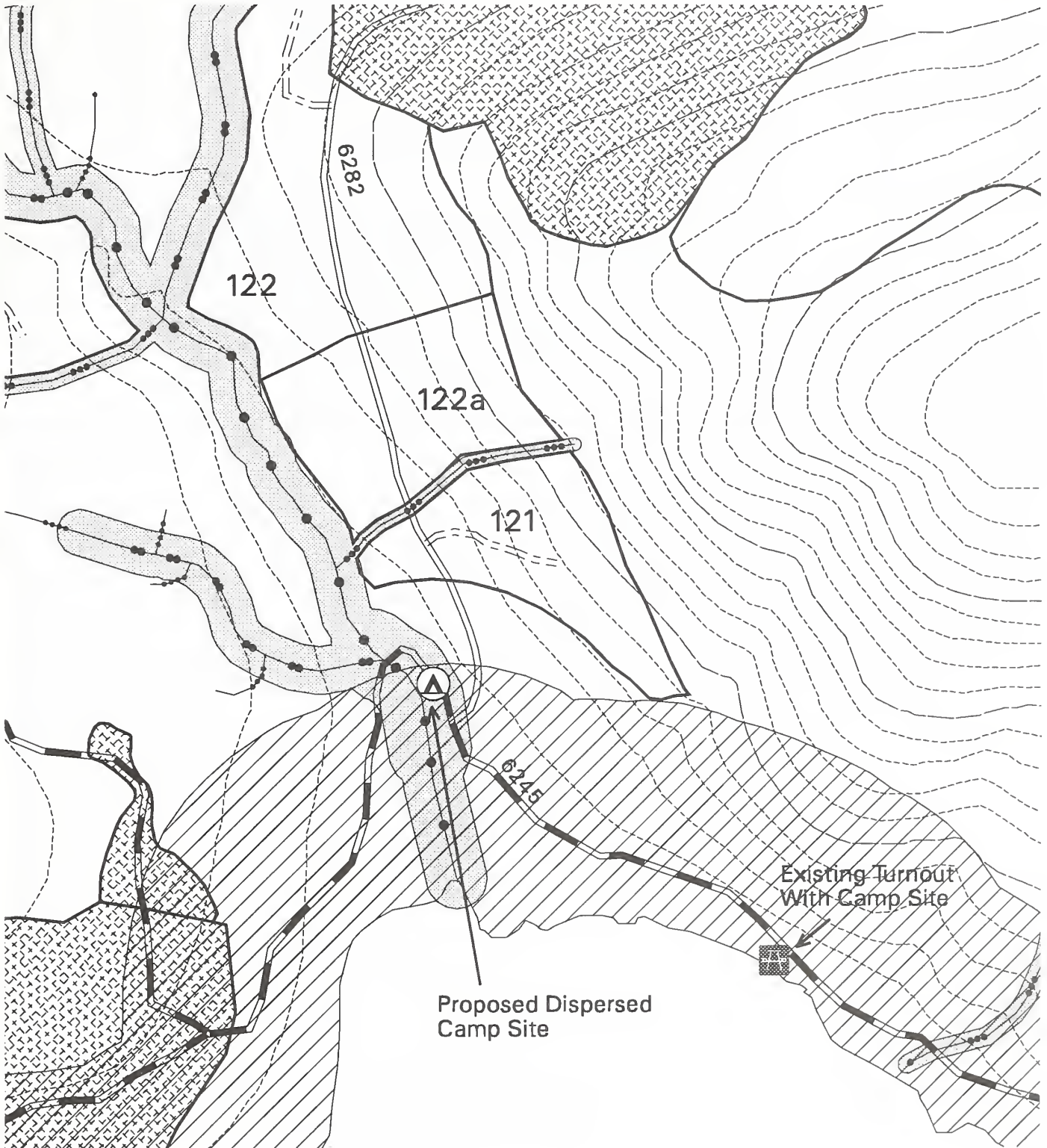


Recreation Project #2

Woodpecker Cove Dispersed Campsite/ Picnic Area

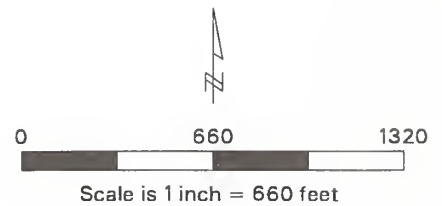
This development will be located near the bridge over Michael Creek on Road 6245. It is intended as an alternative to the small, undeveloped site located adjacent to the beach at milepost 10.5 on Road 6245. The development will include off-road parking, a picnic table and at least one tent site. This site will be located on the former roadbed of Road 6245, which was left after the realignment for the bridge approach. The development will also include a path to the creek and beach.

Woodpecker Recreation Project # 2



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams

- AHMU-Class 4 Streams
- Existing Classified Roads
- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval



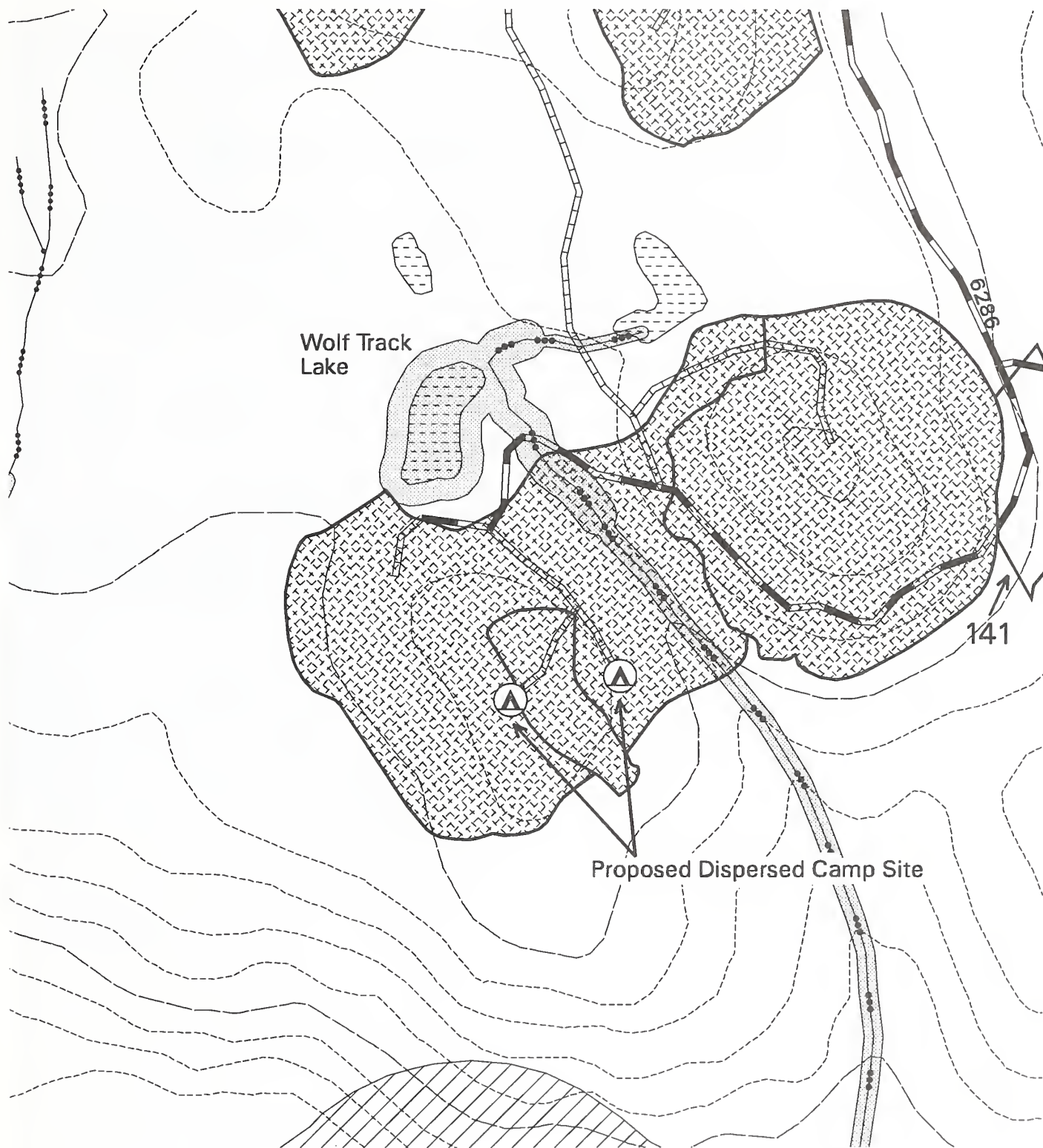
Recreation Project #3

Wolf Track Lake Dispersed Campsites

Two dispersed campsites will be developed at landings in a previously harvested unit south of Wolf Track Lake. These two landings are located at the end of a temporary road that is currently closed at its junction with Road 6286. It is about a ¼-mile walk from the road closure to the sites. The western site shows evidence of recent use, with a makeshift tarp shelter. Both sites have views to the south across Sumner Strait.

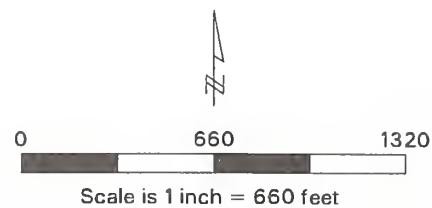
The Selected Alternative includes ground clearing and leveling to accommodate a picnic table and tent pad at each site.

Woodpecker Recreation Project # 3



- Existing Managed Stands
- Riparian Management Area
- Beach Buffer
- Lakes
- Proposed Unit Boundaries
- AHMU-Class 1 Streams
- AHMU-Class 2 Streams
- AHMU-Class 3 Streams

- AHMU-Class 4 Streams
- Existing Classified Roads
- Existing Closed Roads
- Proposed Classified Roads
- Proposed Temporary Roads
- 500-ft. Contour Interval
- 100-ft. Contour Interval



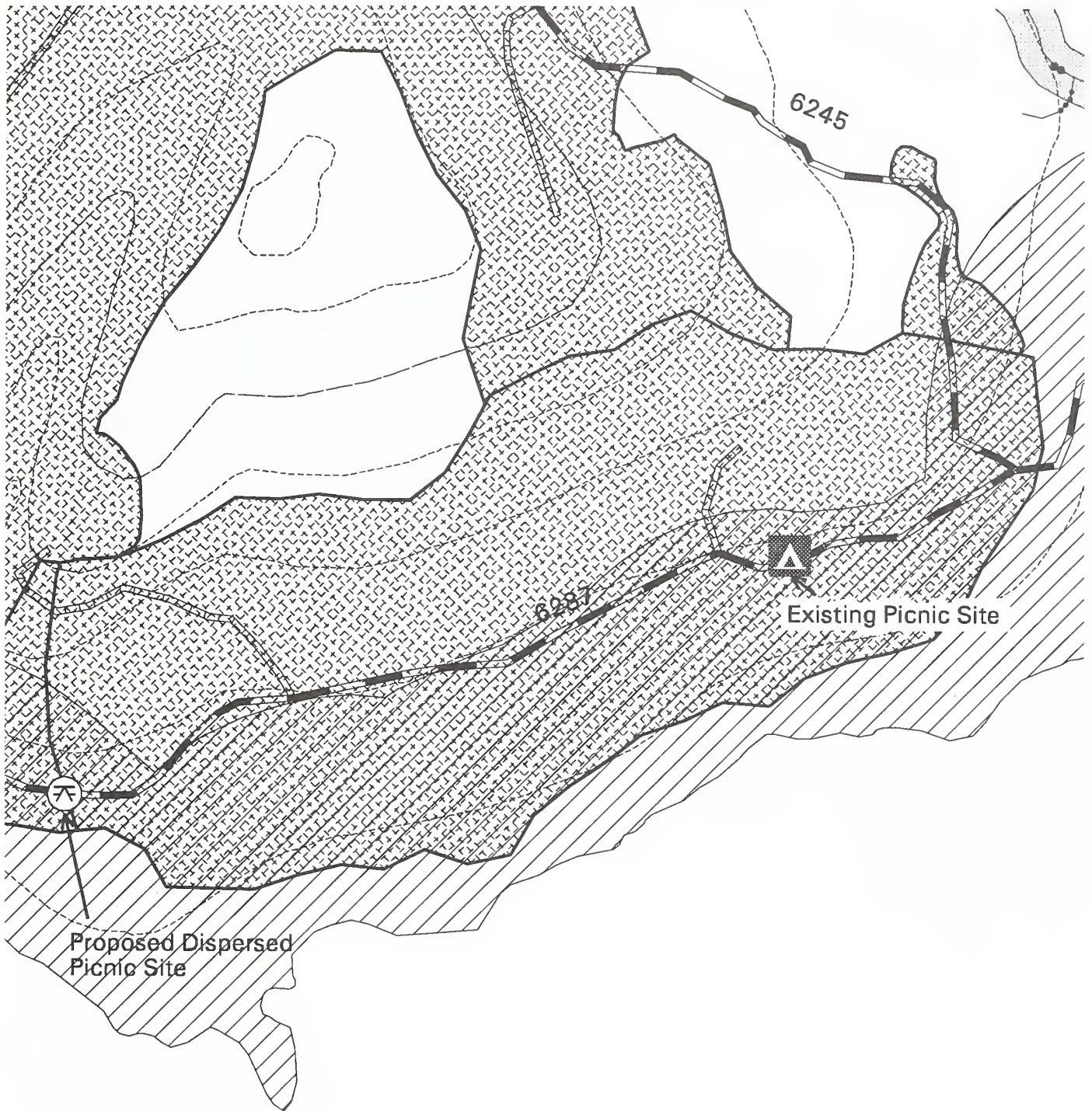
Recreation Project #4

Woodpecker Cove Demonstration Area Picnic Sites

The Woodpecker Cove Demonstration Area was established in 1993 to demonstrate the effects of various degrees of tree thinning on wildlife and plant diversity in a stand of young second-growth. It is located along Road 6287, which is closed to motorized traffic. The first ½-mile of the Demonstration Area consists of an alder-lined path, several markers identifying the different thinning units adjacent to the path, and two viewpoints with picnic tables. In the past few years, alder has regenerated along the path and at the picnic sites to the point where foot and bicycle travel is hindered and the views of Sumner Strait are obscured.

This project will enhance the recreation opportunities in the area by clearing the alder from the path and picnic sites. In addition, it will clear an additional ¾ mile of Road 6287, starting at the end of the existing path. A third picnic table will be placed at a viewpoint overlooking Sumner Strait.

Woodpecker Recreation Project # 4



- | | | | |
|--|--------------------------|--|---------------------------|
| | Existing Managed Stands | | AHMU-Class 4 Streams |
| | Riparian Management Area | | Existing Classified Roads |
| | Beach Buffer | | Existing Closed Roads |
| | Lakes | | Proposed Classified Roads |
| | Proposed Unit Boundaries | | Proposed Temporary Roads |
| | AHMU-Class 1 Streams | | 500-ft. Contour Interval |
| | AHMU-Class 2 Streams | | 100-ft. Contour Interval |
| | AHMU-Class 3 Streams | | |



Recreation Project #5

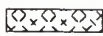














Woodpecker Cove Demonstration Area Picnic Sites

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After implementation of Recreation Project #4, the Selected Alternative will clear the path to the end of the road (about 1 mile beyond the existing path) and set up a fourth picnic table at a viewpoint at the end of the road.

Woodpecker Recreation Project # 5



- | | | | |
|--|--------------------------|---|---------------------------|
|  | Existing Managed Stands |  | AHMU-Class 4 Streams |
|  | Riparian Management Area |  | Existing Classified Roads |
|  | Beach Buffer |  | Existing Closed Roads |
|  | Lakes |  | Proposed Classified Roads |
|  | Proposed Unit Boundaries |  | Proposed Temporary Roads |
|  | AHMU-Class 1 Streams |  | 500-ft. Contour Interval |
|  | AHMU-Class 2 Streams |  | 100-ft. Contour Interval |
|  | AHMU-Class 3 Streams | | |

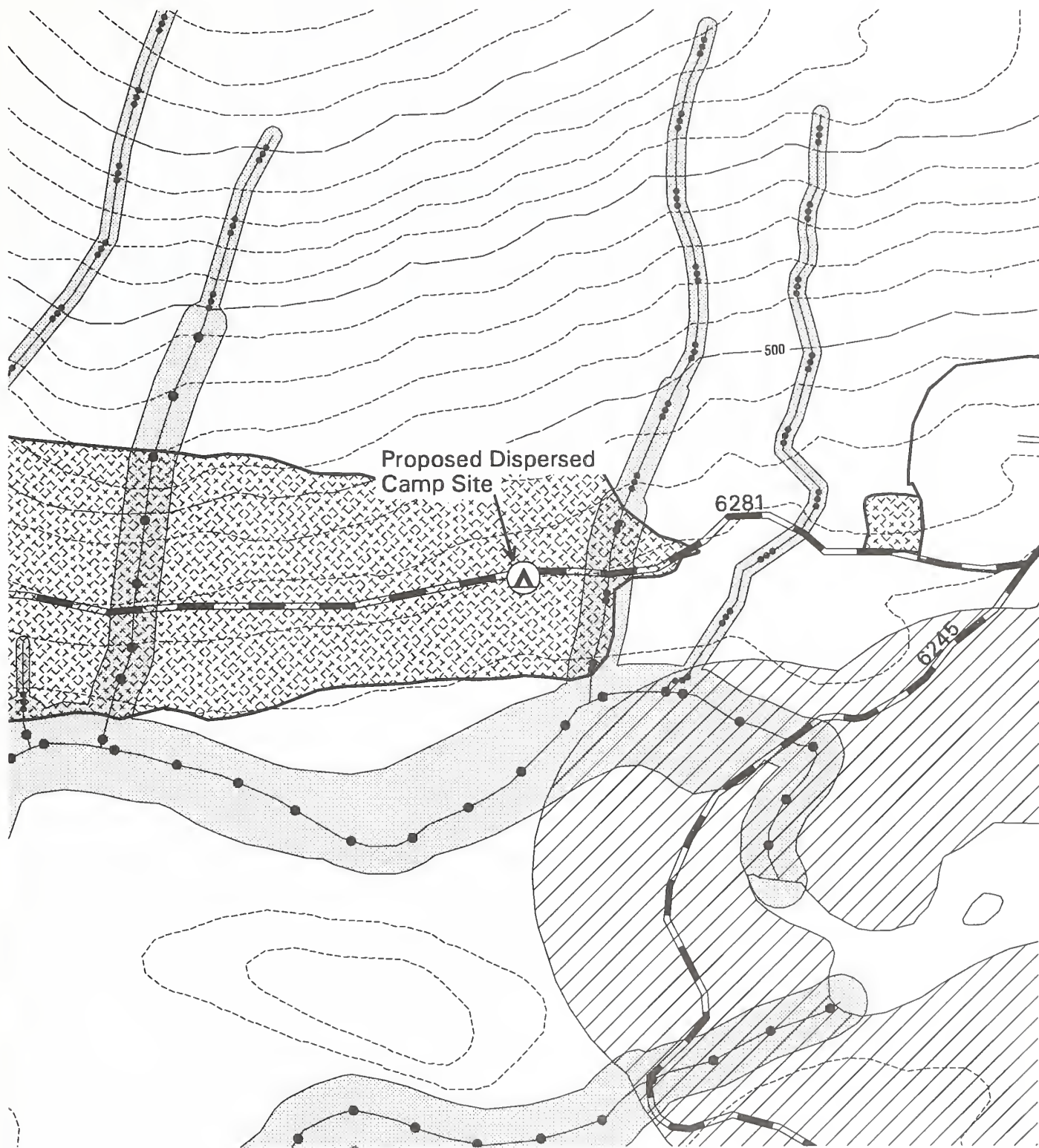


Recreation Project #6

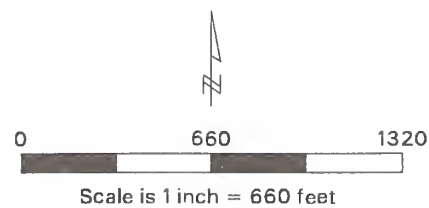
Dispersed Campsite on Road 6281

A landing located on Road 6281, ½ mile from the junction with the Woodpecker Road, shows evidence of its use as a temporary campsite. The site has good views to the south and east towards south Blind Slough. This project will prepare the area for a picnic table and tent pad.

Woodpecker Recreation Project # 6



- | | | | |
|--|--------------------------|--|---------------------------|
| | Existing Managed Stands | | AHMU-Class 4 Streams |
| | Riparian Management Area | | Existing Classified Roads |
| | Beach Buffer | | Existing Closed Roads |
| | Lakes | | Proposed Classified Roads |
| | Proposed Unit Boundaries | | Proposed Temporary Roads |
| | AHMU-Class 1 Streams | | 500-ft. Contour Interval |
| | AHMU-Class 2 Streams | | 100-ft. Contour Interval |
| | AHMU-Class 3 Streams | | |



Recreation Project #7

Parking Turnouts along Woodpecker Road

The Woodpecker Road (Road 6245) currently has safety turnouts, which are designed to allow converging vehicles to pass more easily and safely. Hunters and recreationists regularly use some of these turnouts as parking areas. This project will build more turnouts and enlarge some of the existing turnouts along the Woodpecker Road. Each turnout will be designed to accommodate one to two cars. The turnouts will be located to provide convenient access to areas that people use for hunting, fishing, berry-picking or sightseeing.

Kupreanof Island

Mitkof Island

Woewodski Island

Blind Slough

Mitkof Highway

Crystal Lake

Wrangell Narrows

December Point

Wolf Track Lake

South Blind Slough

Woodpecker Cove Demo Area

Woodpecker Cove LTF

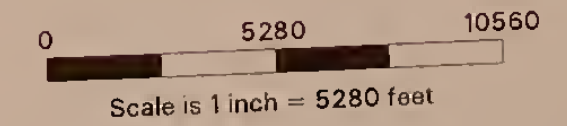
Sumner Strait

Woodpecker Project Area

Recreation Project #7

LEGEND

- Existing Managed Stands
- Non-National Forest System Lands
- Lakes/Saltwater
- Streams
- 500ft Contours
- Project Area Boundary
- Existing Open Road
- Proposed Turnout



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